

ITEMS OF INTEREST.

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ORIGINAL COMMUNICATIONS.

SOUTHERN DENTAL ASSOCIATION.

Reported by Mrs. J. M. Walker.

[CONTINUED FROM PAGE 593.]

HYGEIA HOTEL, OLD POINT COMFORT, VA.,

August 2d to 6th, 1894.

Dr. E. P. Beadles, Danville, Va., read the following paper, discussion of which was postponed till after the reading of other papers from the same section :

ANTERIOR FILLINGS.

In this discussion, which will be brief, I shall confine myself to the four upper incisors and the two cuspids.

First as to the operator himself, then the preparation of the cavity and introduction of the filling.

No operator, however expert, can perform good work in a cramped, awkward or tiresome position. His position must be a natural one. With the back bent, or head twisted, or any other unnatural position he will soon bring fatigue, and the best results are not obtained. The upright posture, as straight as an Indian, standing to the right and partially behind the patient, with the head bent slightly forward, is the posture to be maintained when operating on the anterior teeth, and with very slight modifications the proper position in filling all teeth.

Those who have not been operating in this way may not understand how such a position is possible, till I mention the fact that the mouth mirror is an indispensable adjunct to this method. The mouth mirror, in my opinion, is the means of salvation to the dentist. I never fill a cavity, whatever material is used, without the assistance of the mirror, unless the buccal surface of the anterior teeth be excepted. By its use the upright position can always be maintained. I can do as much operating in a day as any other dentist, and yet never had a backache in my life. The bending over the patient, even resting on their breasts, is disgusting and unnecessary. Elevating your chair to the ceiling to "get at" a cavity in the lingual wall of a central incisor is never called for. My chair assumes almost exactly the same position at all times. With the exception of slightly raising or lowering, the same position suits my purpose for all teeth. No man who has not made intelligent use of the mouth mirror can imagine what it saves, even in lower molars, in grinding surfaces to reflect light into the cavity.

I once heard a dentist boast that he never used a mouth mirror in filling teeth. This man was quite as far wrong as the man who never used a rubber-dam, or the one who had never used a dental engine. Learn to use all these if you wish to operate with comfort to yourself and to your patient.

PREPARATION OF CAVITY.

This paper is intended to be practical, and all is drawn exclusively from my own experience.

Above all, do not mutilate the teeth. Nature knows best, and no man yet has improved on her forms.

A few days ago I saw the mouth of an accomplished and wealthy young lady with almost every tooth in her mouth cut out of all shape with V-shaped spaces from centrals to third molars; every filling was well inserted, and some of them were excellent; but that horrible mutilation! It is a shame on the dental profession. For two years I have done good work without seeing the necessity of resorting to this practice.

Don't use rubber wedges for separating; why should you make a hell for your poor victims? Don't use separators with a lever a foot long, to force the teeth apart.

Don't, for heaven's sake, don't drive cords of wood between the teeth of some nervous woman and make her shriek as did the victims of the Inquisition. All such torture a dentist can inflict and call it "practice by the latest methods," but it is barbarism.

In the first place, who can give an intelligent reason for so much space between the teeth to insert a little simple filling requiring fifteen or twenty minutes? When I had been practicing dentistry about two months, there came to me a young man to have two centrals filled. I put in a piece of rubber to get a separation. The boy suffered so that his father pulled the rubber out, then gave me a small piece of his mind. That was the first piece of rubber I used in my practice, and with the help of a sound mind it will be my last piece. All the separating a first-class dentist needs, except in rare instances, is space enough to pass a thin sand-paper disk through. All you need is room enough to polish the filling after its insertion. If you have not this space to begin with, wedge in a small piece of dry cotton, not too tightly, and dismiss your patient till the next day, when there will be ample room for your purpose, *i. e.*, if you know how to do it. This will be easy and simple enough, if you will cut away the enamel wall on the lingual side, cut it all away, so as to expose the cavity to be reflected in the mirror.

No man can fill a cavity properly, certainly not with cohesive foil (and I doubt very seriously whether he can with non-cohesive), unless he can see every part of it. Who can work around a corner? The shape of the cavity when ready for the reception of the gold should be that of a cube or square with rounded corners, no sharp right angles. We should sometimes make a slight groove in the cervical wall for the reception of the first piece of gold, which should be non-cohesive. The sides of the cavity should be as nearly parallel as possible, no under cuts and no pits or retaining points. Many dentists prepare their cavities with the one idea that this filling must not fall out, leaving the preservation of the tooth entirely out of the question. Remember, that if you prevent leakage and decay, your filling will remain.

With the walls prepared as described above, you can easily make a water-tight filling. After filling your groove, condense well over the cervical margin, and burnish. By doing this you have the margin safe, and you need not interfere with it again. This is an important point, and if attended to at this time it can be done more thoroughly than afterward.

Of course, the whole filling can be inserted with non-cohesive foil, but from this point on I generally use cohesive. Rolling the gold between the fingers (the superstition about not touching gold with the fingers has about gone), I anneal and cut into pellets of the desired size. I prefer to make my own pellets, as no manufacturer can make them to suit every case.

If the non-cohesive foil is properly condensed, not too hard, the annealed foil will readily cohere and the filling can proceed. Keep the proximal wall well burnished as you go along, and when the operation is finished, polish with a fine sand-paper disk, finishing with one of cuttlefish.

As to instruments used, one small straight (or nearly straight) round-pointed steel-handled plugger, one flat-pointed, and one or two right angle round-pointed ebony-handled pluggers, are all the instruments necessary. I use very few pluggers, consequently I am well acquainted with them. The gold is packed thoroughly against every wall, every pressure being directed toward the wall. This is one of the secrets of perfect filling. And when packing the gold against the wall don't use serrated points, for they come in contact with the wall, leaving a space where the instrument is serrated which will become a leak. Smooth points are needed here, the serrated ones can be used in the body of the filling, but I care very little for serrations anywhere.

Don't pound your filling and your patient to death. Some men seem to have an idea that the more gold they can condense into a cavity the better the filling. This is a mistake. It weakens the gold when hammered too much, as the pellets do not cohere as well to a hard, smooth surface. When the cavity is filled, stop. Why a man should build a mountain of gold, simply to be ground off, is a puzzle to me. I have seen operators of great reputation build as much gold outside of the necessary contour as they had in the cavity. Why this waste of gold and waste of your patient's patience? To trim off this gold is especially objectionable if the tooth be sensitive to the heat caused by friction. Place exactly what gold you need, and no more. By the method here described, using hand pressure, very frail walls can be built against with safety, and with the assurance your filling will remain. I am a firm believer in hand pressure. I have no electric plugger; no Bonwill mallet; nothing except an automatic, which is the least used of any instrument in my cabinet. It may be that I am stronger in my hands than many operators, but, after condensing by hand, I find that no blow that can be tolerated by the patient from an automatic condenses the gold further. This is a great comfort to the patient. No mechanical invention can improve on the human hand. More force can thus be used, as the pressure is steady and gradual. As to time, with practice I am confident as much rapidity can be attained by this as any other method.

Even in the anterior teeth I sometimes use other material in combination with gold. Cement can thus be used by filling the cavity nearly full, then pressing into the soft cement a few pieces of annealed gold, waiting till the former has hardened, then finishing. Amalgam may also be found desirable in a few cases, facing the labial surface with gold.

THURSDAY, August 2d, 8 P. M

Dr. S. W. Foster, Decatur, Ala., read the following paper :

FILLING MADE IN LABORATORY.

Whatever the operation may be, the dentist should consider the welfare of his patients, both in selecting the proper material and in giving his best manipulative skill. We should also employ methods and appliances that will give the patient the least pain and discomfort consistent with good work.

Two years since a machinist received a blow from the handle of an iron maul, on the central incisors, breaking both off at the gingival margin of the mesial surface, diagonally across to the angle of the distal surface. Usually I would have removed the pulp and remaining part of teeth, replacing with a Richmond or a Logan crown. But in this instance I prepared the right central for the reception of a gold filling, depending largely for anchorage on a gold wire set in the tooth about midway between the labial groove, pointing diagonally to near the mesial angle. The left central, which was a duplicate of that just described, had a little more nearly exposed pulp. This we restored with a contour filling made in our laboratory. We first beveled the margins of the fracture and accurately burnished a thin plate of platinum to the surface, allowing it to extend a little beyond the margin of fracture. Through this were drilled three small holes. At parallel angles were inserted platinum pins, and contoured wax over this from labial surface across the mesial edge. Back and flush over the fractured edge of palatine surface was burnished another thin piece of platinum. By using a warm burnisher, the platinum was made to adhere to the wax. The whole was then removed and invested, leaving the mesial margin exposed, the wax burned out and the pocket filled with 22k. gold solder. The investment was removed and piece finished and adjusted to the stump. The entire operation was completed in a little more than an hour. The patient asked why I did not fix the first as I had that one. A few evenings before coming to this convention I sent for the young man, that I might see the relative merits of both fillings. I found the one filled with Williams' cohesive gold beginning to slightly pit over the surface, and the angle of the mesial corner was a little defaced. The filling made in my laboratory retained a smooth surface and was in perfect position, giving a much better expression than the other. This fact, as well as the facility and ease with which they can be adjusted, give them merit. A porcelain faced filling is preferable to the average operator, but it is impossible to get an accurate adjustment; therefore, all things being considered, the all-gold filling made in the laboratory is superior.

Dr. ———: How was your laboratory-made filling attached to the tooth?

Dr. Foster: With cement, in the usual way.

Dr. F. Abbott, New York: We should inflict as little pain as possible. This encourages people in having their teeth cared for. When the rubber-dam was introduced I was struck by what was claimed for it, and at once procured a supply, but I found great difficulty in applying it; and also that it was often excessively painful if so adjusted as to secure the desired results. I therefore

abandoned it, except in extreme cases. I do not use it on more than one out of a hundred patients, where it might be used, but where I can do the work with less trouble and in less time without it.

A word about the use of obtunding medicaments. Twenty-five or thirty years ago, if the dentine was sensitive, arsenic was applied in the cavity for a few hours. In a few days the tooth discolored, the pulp died, and abscesses followed.

Now we have all kinds of obtundents from all parts of the country. I use none of them except a simple alkali, usually harmless. I put my patient under regular treatment for some time. A teaspoonful of soda in a glass of water, and ordering the patient to hold a little in the mouth twenty or thirty times a day; the next day double the proportion of soda, and the third day double it again. On the fourth day I put the soda in the cavities for some time before cutting the tooth. By that time I can cut without pain.

But this can only be done where you have control of your patients. Alkali is a natural tooth obtundent. The teeth are not normally sensitive, but when inflamed by acids, which produce decay, they become excessively sensitive. Soda restores them to a healthful condition. Much of the pain and soreness suffered by patients is caused by bungling operators. There is everything in knowing what you want to do and how to do it.

Dr. G. J. Freidrichs, New Orleans: I cannot endorse Dr. Abbott when he says a sensitive tooth may not be in normal condition.

Dr. Crawford: I would criticize the use of platinum in contact with the dentine. By the use of soft wood, pure gold can be adapted as closely as cohesive foil for a filling. It is unnecessary to make the little pocket in the platinum burnished over the wax. If the platinum pins are extended far enough out they form a framework for the gold, and we can use 22k. gold all through.

These gold restorations made in the laboratory, for the six anterior teeth, are very good for a gentleman's mouth, but for a lady or for a gentleman, if very esthetic, I should prefer porcelain restoration. The retaining pins must be carefully located at parallel angles. In my clinics I will bring out the location of guide pins; in bridge-work, also, the principle is involved, and the formation of the holes and the use of all gold instead of platinum. I object to the use of different metals in the teeth. We can better combat pathological conditions if we use but one metal. The construction and form of the attachment of crown and bridge-work requires more thought and study than many imagine.

Dr. Morgan: I have had neither experience nor observation

in laboratory work for filling teeth. In the cases represented on the paper, I should build up and contour them, and see no reason why I should change my practice, though the results might be satisfactory. Sometimes when the pulp is very nearly exposed, it is necessary to destroy it and fill the root. If for a young patient, it complicates the case, as the root end may not be perfectly formed, but have a funnel-shaped opening the wrong way. Not long since I saw a case like this, which I filled nineteen years ago. The patient was then a boy of twelve years. The incisors were broken off from the mesial corner up to the border of the gum. I filled with cohesive gold, driving it in with the mallet. They are still in good condition. I cannot understand how one such filling can exhaust both patient and operator. Recently at a college clinic I had a similar case, where I had to clean and fill the root and restore the contour. I learned afterward that the boys had "held the watch" on me. I had taken exactly fifty-five minutes, using six and a-half sheets of No. 5 gold, so I do not see how such a case should take three or four hours.

The other paper (Dr. Beadles') is admirably written, and I admire the writer as much as any man I know in the profession, but I do not like his dogmatic style; it is not scientific. What he said was equivalent to saying that no man could work successfully if he did not view his work through a mirror. Now I have been filling teeth for many years, but I do not use a mirror. I want both of my hands for other purposes. If I took one hand to hold a mirror I could not do good work. Again, he dogmatically says that the only position for the operator is always at the right side or behind the patient. Now that may be good for him, if it is the only position in which he can work, but it is not my way. I could not see into the patient's mouth, and reach every part, if always in that position. I must look into the mouth and see the end of the instrument, then I know where it goes. Some men stand in front of the patient; some at one side, and some at the other. I object to all such dogmatic rules—never say this is the only way. Another man says the use of rubber for separation caused so much pain that he does not use it at all. Now, I use rubber in separating, and I think I cause as little pain as anything he can use. But I do not always use rubber; I often use wooden wedges.

A man who inflicts unnecessary pain is a ruffian. Cotton is not of universal application. Often the teeth would not hold in enough cotton unless it was crowded up to the gum in the interdental space. One says hand pressure is the mode above all others. For twenty-five years I have used the mallet, and I know that I make better operations and give less pain than when I used

only hand pressure. I have had my own teeth operated on, and I greatly prefer the mallet. The true philosopher examines all the circumstances, and is governed by environments. Study the case, make a diagnosis, judge of and be governed by the indications.

In separating, drive in a wedge very slightly; after a few hours, or perhaps days, you can double the wedge with no more pain than with the first. Take time; work slowly but certainly. If you force in a large piece at first, the constant pressure causes great irritation and severe pain, and the tooth gets too sore to work on. In these things much depends on the idiosyncrasies of the patient. Every case must stand on its own merits. You cannot be governed by dogmatic rules. I did not know that arsenic had ever been so generally used to destroy sensitiveness of teeth, as has been intimated, but I do know that arsenic kills the pulp, perhaps not immediately, but eventually. Zinc was used at one time, but it gave too much pain, and never became popular. Ether, used with a spray apparatus, will cool the tooth till it becomes benumbed and but little sensitive, though if continued long it will cause excessive pain. If the tooth is kept dry—and this is impossible without the rubber-dam—there will be less suffering than without this precaution. Absolute dryness is the most important adjunct in subduing the pain incurred in cutting dentine.

Dr. Crawford: When the use of arsenic prevailed so extensively, did those men not know that it would kill the nerve?

Dr. Morgan: I cannot say. If they had any understanding of the action of arsenic, they must have known it. Horse doctors cured fistula—"poll-evil"—by putting in a little particle of arsenic, which they knew would slough out the diseased tissue. I have seen it come out in a mass as big as your head. Yes, sir; dentists who used arsenic must have known its killing effect or been most ignorant, for even the horse doctors knew it was death to the soft tissues it reached.

Dr. Beadles: I did not say that other persons could not work successfully by other methods. I gave the method with which I had been most successful, and read the paper in hopes of inciting a discussion, to bring out other methods. Dr. Morgan has jumped on me pretty roughly, but he has done me good. There was no intention of being dogmatic, except for myself. I made no rules for any one else.

Dr. Morgan: I would rather Dr. Beadles had not said I "jumped on him." I have a high regard for Dr. Beadles, and value him at his full worth. I would not for the world say anything to hurt him. But we want only the truth.

Dr. Friedrichs: God Almighty fortunately put me in New Orleans instead of in Nashville, consequently I cannot see things in the same light as our friend from Nashville. In regard to the use of the mallet, a lady came to me not long since to ask if I would fill her tooth without using the mallet; that I had filled teeth for her "before the war" without any mallet, and they were still good. The last fillings were put in with the use of the mallet and made her so nervous and ill that it was two weeks before she was able to sleep at night. That is the way patients look at these things. Hand pressure will spread the gold, but rapid blows with the mallet condense only the surface.

Dr. H. D. Boyd, Troy, Ala.: In reference to arsenic, as a curiosity I will state I have a tooth in my mouth to which arsenic was applied twenty years ago for the alleviation of sensitiveness in dentine, but that tooth is unquestionably alive now, as any one will pronounce who will examine it. In reply to questions, Dr. Boyd stated that the arsenic remained in thirty minutes, and twenty-four hours later the tooth was cut on the anterior proximal surface.

Dr. W. H. Morgan: That is only another proof that there are exceptions to all general rules—idiosyncrasies. We say that opium produces sleep, but that is not always so; there are people in whom it prevents sleep.

Dr. Frank Holland, Atlanta, Ga.: Dr. Abbott said that normal dentine is not sensitive. Now the worst trouble that I encounter is in cutting down a normal tooth for crowning. It is exceedingly sensitive when the dentine is struck, so sensitive that sometimes I cannot keep the patient in the chair. A perfectly sound tooth is the most sensitive tooth.

Dr. J. Y. Crawford, Nashville, Tenn.: The question is whether the dentine is normally sensitive or non-sensitive. I say the normal tooth is more sensitive in some individuals than in others. In an anemic condition there is a departure from the normal line, not alone in the denture, but throughout the entire nervous system. In the typical normal condition of the entire individual a man may go to sleep while you are cutting his tooth, but take the city-bred neurotic, and there is such a keen dart of pain that you have to desist; even our most reliable local obtundents will not overcome it. Dr. Friedrichs says that his sensitive tooth is in normal condition. But Dr. Friedrichs is of such a highly nervous organization that I doubt whether either his heart or his respiration, or any of the tissues of his body, are normal.

Dr. Beadles: I rise to a point of order. The discussion has drifted to a point where it has no connection with the paper

under discussion. Are we now to discuss the whole subject of operative dentistry?

The Chair: Dr. Foster's paper made comparison between two operations, one of which was painful, the other was not. The range of the discussion is not out of order; it is practically along that line.

Dr. Crawford: The position of the operator at the chair depends largely on his training. The man who plugs teeth using a high-low base chair, operates differently from one who learned while using a split bottom chair in the country. I do not have a stool or a mirror, it takes all I can do to use both hands for my instruments and stand up to it. The paper says use only hand-pressure, but in the process of the evolution of dental thought we have got beyond that. With uniform fastenings throughout the cavity, and combining non-cohesive gold with pellets of cohesive gold, you can make a plug that can be passed through a rolling mill and form a ribbon of gold.

Dr. Friedrichs: My poor tooth has been called in question again, as to whether it is normal or abnormal, but you have not examined it. Is my finger nail normal or abnormal? I call it normal, and I cut off the end of my nail and do not feel it. It is not sensitive. But let me cut too far down; it is still normal, but it is certainly very sensitive.

Dr. Morgan (to Dr. F.): Have you ever had rheumatism? I have never seen a rheumatic whose teeth were normal, as far as sensitiveness is concerned.

Dr. Frank Holland: I have some twenty rheumatic patients, and I am sure they complain less than many others. How can rheumatism affect the teeth?

Dr. Morgan: That may be so, and yet the statement is true.

Dr. Gingrick, Baltimore, Md.: How does Dr. Abbott know that normal dentine is not sensitive?

Dr. Abbott: No tissue is normally sensitive, but when irritated it becomes sensitive, and if sensitive it is abnormal. When you touch the dentine it is sensitive; therefore, it is abnormal.

Dr. Cowardin: Extreme sensitiveness of dentine is largely due to idiosyncrasy. Rheumatics and gouty patients suffer most exquisitely. I have a friend thus affected—a physician—whose dentine is exquisitely sensitive, and it is also almost impossible to destroy a nerve without arsenic. It gives him most extreme pain for hours, though I use every method to relieve it. He had a tooth filled with amalgam by my assistant. In twenty-four to thirty-six hours he was suffering from neuralgia—tactile sensibility of the face; he suffered excruciatingly from simply touching the

skin. He was heavily dosed with quinine, etc., for neuralgia. I inquired into the case (the nerve was not exposed in the tooth). I relieved him with aconitia. That case was one of gout—the uric acid diathesis. It is a difficult thing to form an idea of what normal dentine is. There may be peripheral irritation or systemic irritation. If systemic, then the dentine is not normal.

Dr. Frank Holland: What has the condition of the blood to do with it? A man with constitutional weakness is less able to bear pain; if he is hurt he will complain more, but no one can prove that there is any physiological connection between the rheumatic diathesis and the dentine of a tooth. Such a patient may complain more, but he does not suffer more!

Dr. Cowardin: No part of the body is in physiological condition in the gouty or rheumatic patient. The nerves are in a hyper-sensitive condition from malnutrition.

Dr. Frank Abbott: It has been asked how we know that normal dentine is not sensitive? Dr. Cowardin has said no part of the human frame is in strictly physiological condition in the uric acid diathesis. In opening into a sensitive cavity the first extreme sensitiveness abates as we go deeper, till soon the patient gets quieted and says it does not hurt; that is, when we reach normal dentine, pain ceases. As to how rheumatism affects the teeth, it is through the acid condition of the fluids of the body. If we can overcome that condition the teeth will no longer be sensitive. This is done only through constitutional treatment.

Dr. W. C. Barrett: Advanced histologists have accepted the theory that normal dentine is not sensitive. The normal dentine is not nerve tissue. It may contain the unorganized elements of nerve and other tissues, but it has no nerve supply.

You ask, then, how does abnormal dentine get sensitive. The protoplasmic elements get hyperenemic; they get inflamed. The first step is the breaking down or return to embryonal conditions; it becomes capable of or competent to respond to external impressions. But normal dentine is utterly and entirely without sensation. But few are aware that the pulp itself in its normal condition is absolutely without sensation. It is utterly incapable of conveying the sensation we call pain. Pain is abnormal, and a symptom of diseased conditions. How often have you not wounded a pulp and the patient not been cognizant of the fact. You quickly cover and protect it, but if you allow it to remain exposed till it becomes inflamed, then it becomes exceedingly sensitive. The elimination of effete matter must be coincident with and coequal to the supply received; in pathological conditions, waste exceeds the repairs.

Dr. Geo. J. Friedrichs: Is this a hypothesis, or can it be demonstrated?

Dr. Barrett: It is simply axiomatic. No demonstration is needed to prove that two and two make four.

Dr. C. N. Peirce: The assumption is that normal dentine is not sensitive. But it is impossible to get in contact with the dentine in its normal condition, consequently, we do not know this. It is possible that in the middle portions there is no feeling, but in the interzonal layer we always get a response. Just as we pass the enamel, at the border line, a touch gives pain. To say that the pulp is not sensitive, seems absurd. We cannot touch a nerve without its conveying some impression, though varying in degree. Normal or not normal, terminal filaments are always sensitive.

Dr. R. R. Freeman: All this talk signifies nothing. We are beating around the bush and settling nothing. We can't reach normal dentine. When you break through the enamel, you create an irritation which is abnormal. As to the sensitiveness of dentine in rheumatics, I remember, twenty-seven years ago, Dr. Morgan was operating on my teeth. I was a robust, healthy, well-grown young man, but my teeth were very sensitive. Dr. Morgan said, on that indication: "Young man, you are diseased." I had no premonition of the truth at that time, except from the indication that he pointed out, but of late years I have discovered that I am a regular old rheumatic, in all my joints and bones, and twenty-seven years ago the indications were there in my teeth, and Dr. Morgan recognized it.

I have listened, and watched, and weighed carefully here, hoping to catch some inspiration. To go back to the papers—for days and days what pain we have inflicted with our rubber wedges, cotton separations, etc. I get along better now in separating teeth. I use the mechanical appliances for that purpose, with great satisfaction both to myself and my patients. Start the screw, and look your patient in the eye; screw it up a little more, till you see a look in the face that warns you to stop. Let up on it a bit and wait a little, and he will conclude, "it is not as bad as I fancied," and then set it up a little more. You can thus easily get all the room you need. I began to use the rubber-dam as soon as it was introduced, because I found I could have the free use of my hands, and that it was much easier to keep the cavity dry. But we cannot always use the same thing. Sometimes, where we have to use rubber or cotton in separating—when it seems impossible to use anything else—that is just when cotton will do the work. There is no space so close that cotton will not give you room to work. If you can barely pass a silk ligature through, wax the

ligature, and, with a little particle of cotton, make a roll of cotton on the silk, and the ligature will draw the cotton in. Moisture will swell the cotton, and the next day you will find a space. I regard pain as a benign influence. We want pain in some cases, but we should not inflict it unnecessarily.

Dr. H. E. Beach: It is probably scientifically correct to say that normal dentine is not sensitive to an appreciable degree, but how can you ascertain this unless you expose the dentine? And dentine when exposed is not normal. Deprived of its natural covering, it is not in its normal condition. You cannot reach it to test it while it is in its normal condition, completely covered with enamel. Expose it, and it becomes sensitive because it is not normal. I do not believe in the slow processes in separating. No teeth can be comfortable that have anything forced in between them; even a few fibers of silk thread, broken off between the teeth, are a source of worry and annoyance. I do not see how any one can wedge in either rubber or cotton, and expect to leave it there for two or three days, and have a clear conscience. So many things have been introduced to make things easier for the operator, but how about the patient? I once got a contrivance called a duct-compressor. I let some one else use it on me. He thought it was lovely, and wanted to know where I got it, and what it cost. One experience was enough for me. I would not inflict on my patients what I experienced myself, and I said: "Here, you can have this one; I would not put it on any one else for four times what it cost me." If we can't bear a little silk fiber between our teeth, why should we ask our patients to endure a handful of cotton?

Dr. Beadles being called on to close the discussion on his paper,

Dr. C. M. Gingrich asked if gold cannot be pressed directly against the walls of a cavity? It has been said that it cannot be burnished against a tooth.

Dr. Beadles replied that he did not claim to do anything perfectly. He believed he could and did condense gold toward and against the wall of the tooth. Do the best we can; that is all any one can do. He could not comprehend how Dr. Abbott could do without the rubber-dam and claim less trouble for himself and his patients. All that he claimed for the methods advocated in his paper was that they had proved most satisfactory to him for many years. Others would undoubtedly reach the same end by different routes, but these were the methods he had found most satisfactory. The question was asked why he did not use non-cohesive gold all through, if he began with it. Dr. Beadles replied that he began

with non-cohesive gold because he could more easily adapt it next the cervical wall, but found it advantageous to finish large fillings with cohesive gold. He did not use either wedges or clamps, but always attained his end and got there satisfactorily to himself and his patients.

Dr. S. W. Foster being called on to close the discussion on his paper, said he had nothing further to say except that he had been greatly benefited by the discussion.

DENTAL HYGIENE.

The following report from the Chairman of the Committee, Dr. W. E. Walker, Bay St. Louis, Miss., was read by the Secretary.

REPORT OF COMMITTEE ON DENTAL HYGIENE.

Committee—Edward C. Kirk, Francis Peabody, R. R. Freeman, G. J. Friedrichs, J. T. Calvert, T. C. West, and W. E. Walker, Chairman.

MR. PRESIDENT AND FELLOW-MEMBERS OF THE SOUTHERN DENTAL ASSOCIATION; LADIES AND GENTLEMEN:—When I accepted the position offered me by our honored President, as Chairman of the Committee on Dental Hygiene, it was with pleasant anticipations of being with you on this occasion.

It is with sincere regret that I find myself compelled to forego the pleasure and benefits to be derived from such a gathering.

I have the honor of offering you two papers from this section, as follows: "Oral Hygiene," by Thomas C. West, D.D.S., Natchez, Miss.; "Hygiene," by R. R. Freeman, D.D.S., Nashville, Tenn. From other members of the committee I have either valid excuses or unfulfilled promises. From our confrere, Dr. E. C. Kirk, I offer the following letter in lieu of a hoped-for paper:

PHILADELPHIA, July 7th, 1894.

Dr. W. E. Walker, Bay St. Louis, Miss.

DEAR DR.:—I am heartily ashamed of my neglect in not attending to your request with respect to furnishing a paper for the Southern Dental Association. My many duties have kept me so busily employed that it has been impossible for me to more than briefly consider the possibility of writing such a paper. I find now that I am compelled to get away for a short season of rest, to recuperate for my work in the autumn. This, my physician tells me, is imperative, I shall, therefore, go to Europe about August 1st, and remain till the middle of September, which will prevent me from attending the two great meetings to be held at Old Point Comfort. I sincerely regret the necessity which compels me to forego the pleasure of meeting with you, but under existing circumstances I feel that it is best to submit to the inevitable. My recollection of my former experience in meeting with the members of the Southern Association is still vividly pleasant to me, and if it comes in your way let me ask you to express my cordial sympathy and appreciation of their earnest work for the uplifting of our profession. With kind regards,

Yours truly,

Edward C. Kirk.

I have doubtless overlooked valuable papers, to which your attention

should have been called, but in reviewing the subject of dental hygiene, for my report, as Chairman of your Committee, I have carefully scanned a large number of the dental journals published since our meeting at Lookout Mountain, July 26th, 1892, and offer you the following outline of what has appeared in their pages bearing on dental hygiene.

Accepting as the definition of hygiene, "That branch of medicine of which the object is the preservation of health," and including in dental hygiene all that pertains to the preservation of the teeth, the health of the mouth and its tissues, the health of the dentist, and the hygiene of his surroundings. Our Section includes a broad field, with many subdivisions, of which I have made the following in classifying the papers which have appeared bearing on the work of this Section, *viz.*:

Dental hygiene *per se*.

The education of our patients and the public in dental hygiene.

Preventive measures in the hygienic care of children's teeth.

Personal hygiene as relating to the dentist himself.

Hygienic precautions in the sterilization of instruments, the hands, etc.

Hypnosis in its hygienic as well as other aspects.

Hygiene in the prevention of decay.

On dental hygiene *per se* we find "Dental Hygiene," by J. W. Boozer, South Carolina State Dental Association (*Southern Dental Journal*, December, 1893, page 548); "Oral Hygiene," by D. R. Stubfield, Tennessee Dental Association (*Dental Headlight*, January, 1894, page 5); "Oral Hygiene (editorial in *Dental Cosmos*, March, 1893, page 237); "The Hygiene of the Mouth," by Charles E. Francis, American Academy Dental Science (*International Dental Journal*, October, 1892, page 724); also, another article bearing the same title, by the same writer, read before the Pan-American Medical Congress (found in *Dental Cosmos*, November, 1893, page 1227); "Dental Hygiene" (ITEMS OF INTEREST, April, 1894, page 250); "Care of the Mouth and Teeth (editorial in *Dental Register*, March, 1894, page 152); "For the Teeth" (*Southern Dental Journal*, 1894, page 18); "Guardianship of the Teeth," by Grafton Munroe (*Dental Review*, July, 1893, page 587); "Offensive Conditions of the Teeth," by J. Taft (in ITEMS OF INTEREST, September, 1892, page 532, editorial from *Dental Register*).

The education of our patients, and the public, in dental hygiene, we find called "An Important Duty" (in a *Dental Review* editorial from Dr. T. S. Gilmer, February, 1894, page 115); the same subject is treated in a paper on "Education," by Dr. H. J. Burkhart, and discussed in the Union Convention of District Dental Societies of New York (*Dental Cosmos*, December, 1892, page 997); also, in a paper read by Dr. L. M. Warner before the First District Dental Society, New York, where it was discussed at great length (*Dental Cosmos*, January, 1893, pages 10 and 38); see also three letters respectively from Dr. W. H. Baldwin (*Dental Cosmos*, December, 1893, page 1309); Dr. Flanagan (*Dental Cosmos*, January, 1894, page 77), and Dr. Wm. Hughes (*Dental Cosmos*, March, 1894, page 248); also, a paper by L. L. Barber, read before the Northern Ohio Dental Society (*Dental Register*, July, 1893, page 350).

One of our most important duties in the line of dental hygiene is the care of children's teeth. Hygiene has been defined "the philosophy of prevention in contradistinction to resistance and cure." On this line we find "Some Further Considerations of the Subject of Dentition," by C. N. Peirce

International Dental Journal, January, 1893, page 27); "Treatment of the Deciduous Teeth," by L. E. Gordon, read before the Southern Illinois Dental Society (*Dental Review*, December, 1892, page 948); "The Teeth During Pregnancy" (editorial in *Dental Practitioner and Advertiser*; also found in *Dental Headlight*, July, 1893, page 115); "The Care of the Teeth During the Eruptive Period," by E. L. Clifford (*Review*, March, 1893, page 192); "Parental Guardianship of the Teeth," by Grafton Munroe (*Review*, July, 1893, page 587); "Treatment of Deciduous Teeth," by D. M. Gallis (*Review*, March, 1893, page 201, read and discussed in the Chicago Dental Society, page 224); "Care of Children's Teeth" (*Dental Headlight*, January, 1894, page 35); "The Slaughter of the Innocents," by W. C. Barrett, read and discussed in the First District Dental Society, New York (*Cosmos*, March, 1894, pages 200 and 215); "Dentition a Cause of Disease," by C. S. Butler, read and discussed in a reunion convention of the District Societies of New York (*Cosmos*, December, 1893, pages 1301 and 1337); "Dentition and Some of its Diseases," by Dr. Marion Thrasher (in *Journal American Medical Association*, and found in *Cosmos*, March, 1894, page 238); "Lancing the Gums, as a Hygienic Measure," is discussed by Prof. Chas. Gordon (in *Dental Headlight*, January, 1893, page 8). In the same issue, page 9, A. Bethune Patterson discusses "The Dental Aspect of It," in reply to an editorial of *Cosmos*, January, 1892.

Of special personal interest are the papers entitled "Some Hygienic Considerations Relating to the Dentist Himself," by Garrett Newkirk, read before the Chicago Dental Society (*Review*, April, 1893, page 273, and the discussion in May issue, page 393); "Health as a Potent Factor in Professional Success," by Geo. F. Eames, read before the Massachusetts Dental Society (*Cosmos*, February, 1893, page 108); "The Health of the Dentist," by W. W. H. Thackston, read before the Tennessee Dental Association (*Dental Headlight*, January, 1894, page 1); "Some of the Causes of the Deterioration of Vital Energies of Dentists," by J. N. Farrar (*International Dental Journal*, May, 1894, page 289); "Does it Pay * * to Dig after Dollars to the Exclusion of Everything Else, * * to Jeopardize Health and Temper by a Blind Policy of Continuous Application" (editorial by C. N. Johnson in *Review*, September, 1892, page 731); "Sunshine and Shadow," editorial in *International Dental Journal*, July, 1893, page 544, (editorial comments on the last in *Dental Register*, August, 1893, page 414); "Harmony and Discord, Health and Disease," extracts from an article by J. B. Davenport (ITEMS OF INTEREST, September, 1892, page 578); "The Duties of the Hour," including rest as well as labor, etc., editorial by Geo. W. Warren (in *International Dental Journal*, September, 1893, page 701); "Recreation," and "Walking" (editorials in ITEMS OF INTEREST, July and August, 1893); "Bicycles for Dentists," by Jno. H. Coyle (*The Busy Dentist*, May, 1894, page 57); "The Hygienic Value of Deep Breathing," as advocated in the Checkley System of Physical Culture; see an article entitled "Erosion of the Teeth," by S. G. Perry (*International Dental Journal*, April, 1893, page 260); "Foods," by Prof. R. W. Greenleaf (*International Dental Journal*, March, 1894, page 163); "Sleep as a Hygienic Factor" (from *Medical Journal*, in *Dental Register*, December, 1892, page 609); "Food Hygiene," by W. J. Moody (*Dental Register*, April, 1894, page 201, from *American Medical Bulletin*); "The Breath and its Disorders," by J. Taft (*Dental Register*, January, 1893, page 5, also found in ITEMS OF INTEREST, November,

1893, page 675); "The Alleviation of Tired Heels" (*Cosmos*, June, 1893, page 498); "The Attainment of Longevity" (from *Journal American Medical Association*, by D. E. Nelson, M. D., in *Dental Register*, June, 1894, page 280).

On the care of the eyes, we find: "Hints on Vision," by Prof. Schiess, read and discussed in the American Dental Society of Europe (*Review*, November, 1892, page 883); "Care of the Eyesight," by L. Webster Fox, M.D., (*Dental Register*, February, 1893, page 88); "The Sources of Ocular Headaches," by Chas. F. Macey, M. D., (*International Dental Journal*, January, 1894).

"Tobacco, from a Hygienic Point of View," *pro* and *con* (*Register*, February, 1893, page 91), by L. Webster Fox, M. D. (ITEMS OF INTEREST, November, 1892, pages 657 and 688); by A. F. Davenport (in ITEMS OF INTEREST, June, 1893, page 338); ditto (February, 1894, page 117); by L. L. Davis (*Review*, August, 1892, page 628), and discussion by Chicago Dental Society (*Review*, page 654, also *Dental Headlight*, January, 1894).

"The Hygiene of Rubber Plates," *pro* and *con*, J. B. Hodgson (ITEMS OF INTEREST, March, 1893, page 139); T. F. Skeede (ITEMS OF INTEREST, August, 1893, page 475); R. Finley Hunt (*Cosmos*, September, 1893, page 835; also, in *Southern Dental Journal*, January, 1894, page 5).

"Hygienic Precautions in the Sterilization of Instruments, the Hands," etc., by Dr. E. D. Downs (*Cosmos*, December, 1892, pages 1,000 and 1,005), in Union Convention of Dentist Societies of New York; W. D. Miles (*Cosmos*, January, 1893, page 1); Garrett Newkirk (*Review*, January, February and March, 1894, and ITEMS OF INTEREST, February, 1894, page 97; also, in the *Busy Dentist*, April, 1894, page 1); H. L. Ambler (*Dental Register*, September, 1892, page 415).

"Hypnosis," in its hygienic and other aspects, has received considerable attention during the past year; notably the paper of Dr. Fillebrown, read before the Dental Congress, an abstract and discussion of which is found in *Cosmos*, September, 1893, pages 985 and 1,005 (editorial in *Cosmos*, January, 1894, page 58); W. R. Newbold (*Cosmos*, February 1894); Mrs. J. Fremont Burket (*Cosmos*, March, 1894, page 209, and in *Periscope*, page 237; *International Dental Journal*, January, 1894, page 21). "The Ideal Dental Office" is illustrated and described by Dr. T. W. Brophy (in the *Review*, January, 1893, page 483).

Hans Block (Dresden), in a paper worthy of study, entitled "Mastication in Man" (see *Dental Cosmos*, March and April, 1894), says: " * * * Man breeds caries by his reckless contravention of all hygienic laws." Caries, or the decay of the teeth, being the disease which causes that destruction of the dental organs, the reparation of which constitutes four-fifths of our labor, a knowledge of the hygienic laws governing the prevention or the arrest of decay, and the causes leading to its production, is all important to us. In this connection, I would direct your attention to a paper by Dr. L. C. Ingersoll, read at the Columbian Dental Congress, entitled "The Relation of the Predisposing Causes (so-called) to the Actual Causes of Dental Decay," an abstract of which is found in the *Dental Cosmos*, Columbian issue, September, 1893, page 829. I quote his concluding words: "We need a better understanding of that dental hygiene that guards the very portals of life and nutrition, and forbids the entrance into the tissues of the teeth of every element of weakness and decay."

Bearing practically on this branch of our subject, though trenching also both on etiology and pathology, are the following papers: "Etiology of Dental Caries," by A. H. Peck, read before the Illinois State Dental Society (*Review*, July, 1894, page 493); "The Prevention of Caries" (editorial in *Review*, March, 1894, page 199); "Degeneration of Human Teeth; its Cause and its Cure" (*Review*, November, 1893, page 926; also, found in *Dental Headlight*, January, 1894, page 20); "What is the Cause of Caries?" (editorial in ITEMS OF INTEREST, May, 1894, page 305); "Dental Caries as a Contagious Disease," W. J. Morrison (*Dental Headlight*, October, 1893, page 152); "The Effect of Food on the Teeth," Charles T. Howard (*Dental Cosmos*, January, 1893, page 19); "Relation of Food to the Teeth," etc., J. M. Whitney (*Dental Cosmos*, January, 1893, page 41; also, discussion of the same, page 48); "The Teeth of Children" (*Dental Register*, February, 1894, page 92); "Diet; its Relation to Tooth-Tissue," L. Ashley Faught, Central Dental Association of Northern New Jersey (*International Dental Journal*, June, 1894, page 366, and discussion in July issue, page 467); "Influence of Diet on Tooth Structure" (*Dental Cosmos*, November, 1892, page 951, from *The Lancet*); "Hygiene and Diet," the concluding portion of an article by Edward L. Briggs (*International Dental Journal*, August, 1893, page 570; also, discussion, page 613). A study of hygienic diet in the relation to "Erosion," may be found in a paper by S. G. Perry (*International Dental Journal*, April, 1893, page 249, and discussion, page 288); "The Relation of Dental Caries to Certain Forms of Indigestion," E. F. Wilson (*Dental Register*, February, 1894, page 78); "Influence of the Teeth on the Digestive Tract," by Prof. Paul B. Baringer (*Southern Dental Journal*, December, 1893, page 546); "Infection from the Mouth," E. L. Clifford (*Cosmos*, October, 1893, page, 1,120; also, found in *Dental Register*, April and May, 1894); "Syphilis of the Mouth and Teeth," Hugenschmidt (*Cosmos*, September, 1892, page 673); "The Choice of Food and the Importance of Mastication" are treated editorially in the *Dental Register*, October, 1892, page 510; ITEMS OF INTEREST, December, 1892, page 750, and the *Dental Headlight*, January, 1893, page 35. Also, the articles by Hans Block, before mentioned, in *Dental Cosmos*, March and April, 1894.

A point of very special interest to all of us is the importance of proper hygienic precautions in counting our rolls of bank notes! Hans Block tells us (*Cosmos*, June, 1893, page 499,) that a young man died in Vienna last year, from a tumor on the lower lip, due to touching the tips of the finger to his moistened lip, in counting a large number of bills. Dr. Ghion, Medical Director of the United States Navy, in an address on "Sanitary Science," read before the Pan-American Medical Congress, last September, is quoted as having made the alarming statement that 19,000 microbes of diphtheria, scarlet fever, and tuberculosis, have been found in a single bank note! Happy is the man who is not exposed to this terrible risk.

W. E. WALKER, Ch. Com. Den. Hy, S. D. Ass'n.

Man's greatest strength is shown in standing still;
The first sure symptom of a mind in health
Is rest of heart and pleasure felt at home.

Young.

NATIONAL ASSOCIATION OF DENTAL FACULTIES.

The eleventh annual session of the National Association of Dental Faculties, was held at the Hygeia Hotel, Old Point Comfort, Va., commencing Saturday, August 4th, 1894; the President, Dr. H. A. Smith, of Cincinnati, in the Chair.

The resignation of Dr. J. E. Cravens as Secretary was accepted, and Dr. Louis Ottofy, of Chicago, was made Secretary *pro tem*.

The following faculties were represented :

Baltimore College of Dental Surgery—B. Holly Smith.

Boston Dental College—J. A. Follett.

Chicago College of Dental Surgery—T. W. Brophy.

Harvard University, Dental Department—Thomas Fillebrown.

Kansas City Dental College—J. D. Patterson.

Missouri Dental College—A. H. Fuller.

New York College of Dentistry—Frank Abbott.

Ohio College of Dental Surgery—H. A. Smith.

Pennsylvania College of Dental Surgery—C. N. Peirce.

Philadelphia Dental College—S. H. Guilford.

State University of Iowa, Dental Department—W. O. Kulp.

University of Michigan, Dental Department—J. Taft.

University of Pennsylvania—James Truman.

Vanderbilt University, Dental Department—H. W. Morgan.

Louisville College of Dentistry—F. Peabody.

Southern Medical College, Dental Department—C. V. Rosser.

University of Tennessee, Dental Department—J. P. Gray.

University of Maryland, Dental Department—F. J. S. Gorgas.

Royal College of Dental Surgeons of Ontario—J. B. Willmott.

Columbian University, Dental Department—H. C. Thompson.

Northwestern University Dental School—G. H. Cushing.

American College of Dental Surgery—Louis Ottofy.

National University, Dental Department—J. Roland Walton.

College of Dentistry, University of Minnesota—T. E. Weeks.

The following schools were admitted during the meeting :

Western Reserve University, Dental Department, Cleveland, O.

—H. L. Ambler.

Western Dental College Kansas City, Mo.—D. J. McMillen.

With reference to the application of Howard University, Dental Department, the Executive Committee recommended that, in consequence of changes in, and inadequacy of, its Dental Department, the application be rejected. The report was adopted.

The report of the Executive Committee recommending the admission of the University of Buffalo, Dental Department, to

membership was amended by the addition of the following clause, and then adopted: "When the honorary degrees conferred on Messrs. Southwick and Howard are returned to the University and revoked, and official notification of such revocation filed with the Secretary of this Association."*

The amendment to Rule 5 offered by Dr. Hunt last year, making the rule read as follows, was adopted unanimously:

"(5) *STANDING OF UNDERGRADUATES IN MEDICINE*—Undergraduates of reputable medical colleges, who have regularly completed one full scholastic year, having attended at least seven-fifths per cent of a five months' term, and passed a satisfactory examination in the studies of the freshman year, may be admitted to the junior grade in colleges of this association, subject to other rules governing admission to that grade."

The following new applications for membership with their recommendations, were reported by the Executive Committee:

Dental Department, Cleveland University of Medicine and Surgery, Cleveland, O. Recommended by Drs. J. Taft and J. E. Garretson.

Cincinnati College of Dental Surgery, Cincinnati, O. Recommended by Drs. James Truman, T. W. Brophy, F. J. S. Gorgas, and J. A. Follett.

Birmingham Dental College, Birmingham, Ala. Recommended by Drs. H. W. Morgan and C. V. Rosser.

University College of Medicine, Dental Department, Richmond, Va. Recommended by Drs. F. J. S. Gorgas and H. W. Morgan.

Atlanta Dental College, Atlanta Ga. Recommended by Dr. H. W. Morgan and the faculty of the University of Tennessee, Dental Department.

The amendment to By-Law 4, which was offered by Dr. Hunt last year, was laid on the table.

The resolution offered last year by Dr. Sudduth, directing the addition of Latin and Physics to the entrance examination, was also laid on the table.

The special committee appointed last year to consider the matter of the vote of censure passed upon the Baltimore College of Dental Surgery reported, through its Chairman, Dr. C. N. Peirce, recommending that no further action be taken. The report was adopted.

Dr. Louis Ottoby offered a recommendation, which was adopted, that all colleges, members of this Association, shall increase the college course of 1895-6 to not less than six months.

*The Dental Department of the University of Buffalo complied with these conditions on August 13th, 1894, and is therefore admitted to full membership.—LOUIS OTTOBY, *Secretary*.

The following resolution from the Executive Committee was adopted :

Resolved, That any college or colleges making application for membership in the National Association of Dental Faculties shall be required to secure and present to the Executive Committee the approval and endorsement of the Board of Dental Examiners of the State (where such boards exist), in which such colleges are located, before their application can be considered.

The following from the Executive Committee was laid on the table :

Resolved, That we regard it as inconsistent for any member of a faculty of any college, holding membership in this body, at the same time to be a member of any State Board of Dental Examiners.

The report of the *ad interim* committee with reference to charges preferred against the University of Maryland, Dental Department, was referred to the Executive Committee, which reported as follows :

Your Executive Committee respectfully report that they find that the University of Maryland, Dental Department, in the reception of certain students did violate the regulations of this Association, through a misapprehension of the rules, as it is interpreted by your committee, that the regular sessions of all colleges close with their commencement exercises.

The report was adopted.

Dr. Guilford moved that Rule 11, p. 12, of the "History," be understood to mean that students coming from a college not a member of this Association, will not be given credit for any time spent in such institution.

The annual dues were increased from \$3.00 to \$5.00, on motion of Dr. Cushing, to take effect in 1895-6.

On motion of Dr. Truman, the special committee on preliminary examinations was instructed to have prepared by a competent person, and present at the next annual meeting, a list of questions of a standard covering every branch required in the grammar schools up to the point of admission to the high schools.

On motion of Dr. Abbott it was ordered that each college should each year present its announcement, noting any changes; the Secretary to note and publish all important changes in the annual report of the Association.

On motion of Dr. Morgan, all the schools were required to comply with the rule regarding dissections.

On motion of Dr. Ottofy, a committee of three was appointed to revise the Constitution and By-Laws, with the further instruction, on motion of Dr. Trumam, to drop the qualifying term "by."

The following were introduced, and under the rules lie over till next year :

By Dr. Peirce :

Resolved, That, in view of the recommendation of the Executive Committee, this Association will require that all colleges, members of this Association, shall extend the term of the session of 1896-7 and of succeeding sessions to not less than seven months each.

By Dr. Truman :

Resolved, That on and after the session of 1898-9 the regular session of each of the colleges belonging to this association shall be extended to four years.

By Dr. Ottofy :

Beginning with the session of 1896-7 the examinations conducted by the colleges of this Association shall be in the English language only.

By Dr. Ottofy :

Beginning with the session of 1895-6, no college shall be permitted to retain membership in this Association if it is conducted or managed, in whole or in part, by any person or persons who do not practice dentistry in accordance with well-recognized and generally accepted forms, generally known as dental ethics, or if they are owned in whole or in part by men or women who are engaged in disreputable dental practice, or if any college have on its list of trustees, the faculty, demonstrators, or in any other capacity, any one who does not practice dentistry in accordance with the principles above mentioned. This shall refer to dentists only.

By Dr. Ottofy :

Beginning with the session of 1896-7, the following shall be the requirements for the admission of students to the colleges of this Association :

a. A certificate of having successfully completed at least one full year's course of study in the collegiate department of any college or university registered by the regents of the State of New York as maintaining a satisfactory standard.

b. A certificate of having passed in a registered institution, examinations equivalent to the full collegiate course of the freshman year, or to a completed three years' academic course.

c. Regents of the State of New York pass cards for any forty-eight counts.

d. A certificate of having passed the matriculation examinations of any university in Great Britain or Ireland, or of having completed a course of study recognized as an equivalent therefor.

e. A certificate of graduation from any registered gymnasium in Germany, Austria, or Russia.

f. A certificate of the successful completion of a course of five years in a registered Italian *ginnasio* and three years in a *liceo*.

g. The bachelor's degree in arts or science, or substantial equivalents, from any registered institution in France or Spain.

h. Any credential from a registered institution, or from the government in any foreign state or country, which represents the completion of a course of studies equivalent to graduation from a registered New York high school, academy, or from a registered Prussian gymnasium.

By Dr. Gray :

Resolved, That Law 7 of the By-Laws which now reads "attendance on three full courses of not less than five months each in separate years shall

be required before examination for graduation," be amended by substituting "six ^{ths} instead of "five," to take effect on and after the year 1896-7.

By Dr. Willmott :

Resolved, That at least twenty-nine months intervene between the beginning of the freshman year and the date of graduation.

The Committee on Text-books presented the following report, which was adopted :

Your Committee on Text-books would report that only two works of this character have been presented for consideration :

One, a work on "Dental Anatomy and Pathology," by Dr. C. F. W. Bodecker, of New York, 700 pp. ; and the other, a smaller and less pretentious work of about 75 pp., on "Operative Technics," by Dr. Thomas E. Weeks, of Minneapolis.

Both of these works are in press and nearly completed. The treatment of their subjects is full, clear, and concise, and the illustrations numerous, well executed, and for the most part, entirely new.

Your committee would, therefore, recommend these two works for endorsement as text-books.

Suitable resolutions regarding the death of Drs. R. B. Winder and W. H. Eames, were presented and adopted, and the Secretary was instructed to communicate a copy to their respective families.

The following officers were elected for the ensuing year : Frank Abbott, President ; S. H. Guilford, Vice-President ; Louis Ottofy, Secretary ; H. W. Morgan, Treasurer ; J. Taft, B. Holly Smith, and Thomas Fillebrown, Executive Committee ; James Truman, Truman W. Brophy, and Francis Peabody, *ad interim* Committee.

Dr. Abbott, the newly-elected President, was installed, and appointed the following committees :

Committee on Schools—J. A. Follett, F. J. S. Gorgas, Louis Ottofy, C. N. Peirce, and Truman W. Brophy.

Committee on Text-books—J. D. Patterson, A. O. Hunt, J. B. Willmott, T. E. Weeks, and J. P. Gray.

Adjourned.

QUEER EXPERIENCE OF A DENTIST'S PATIENT.—A peculiar experience occurred to Scott Pierce, in Burlington, New Jersey, lately. Pierce drove down there to have a couple of teeth extracted, and in the operation the dentist froze the gum with a preparation composed chiefly of cocain. About half an hour after the operation Pierce was observed going down Main street standing in the wagon and whipping the horse.

When near the river Officer Shumard succeeded in stopping the team, and an investigation revealed the fact that the drug had affected the young man's brain, and for the time made him a raving maniac. He was taken care of, and after a good night's rest seemed none the worse for his experience.

DISCRIMINATION IN FILLING MATERIALS.

Dr. J. L. Davenport, New York.

The question, "What is the best material with which to fill teeth?" has been so often asked and answered, that doubtless many who read the first lines of my article will turn over the leaves in contempt. At a meeting of the Odontological Society, of New York, some years since, this subject was being discussed by many of the able men in the profession, when the President called on Dr. Benjamin Lord for his views. I remember well the sensation when that able, gray-haired veteran arose, and, slowly repeating the question, said: "My opinion is, that the best material with which to fill teeth is *judgment*." The slight shock on those who had been extolling this and that material, was so great that the subject was soon passed. The significance of Dr. Lord's answer was so overwhelmingly logical that the Society members all admitted that the question had been soundly answered.

It is surprising to me, however, that there are so few dentists who have benefited by Dr. Lord's logic.

In view of the many dental colleges, and the vast amount of dental literature flooding the land, it is surprising to see the stubborn ignorance that exists among both the masses and average dentists, as to how best to treat the teeth for their best preservation.

I well remember the bomb thrown into the ranks of the profession by J. Foster Flagg, at a meeting held at the house of Dr. Haws, in New York, once: The teachings of Dr. S. B. Palmer, of Syracuse, N. Y., and Professor Chase, of St. Louis, who, with Dr. Flagg, were the promulgators of what was styled the "New Departure Theory," which was diametrically antagonistic to the accepted practice, which had existed since the days of Drs. Greenwood and Washington. It is true that some of the teachings, by stubborn, old-time professors in the colleges, have been rather antagonistic to the "New Departure Creed," and, consequently, students have not been instructed to exercise that judgment which is so requisite to the modern dentist. To pound gold in soft and frail teeth, for children, with the admonition that it is permanent, is practice of the most reprehensible character. I find amalgam and gold is the standard filling by dentists in the rural towns, with but little regard as to the age of the patient or the quality of the teeth. Oxiphosphate is also largely used by these men, under its various names, conveying to the patient the statement that it is "insoluble." This is nothing less than downright deception. It

is true the packages of this material are marked insoluable, but if there has ever been any manufactured that was so, we have never discovered it. It is the most deceptive of all the materials used, as the oral fluids wash it out quickly near the gum, while the remainder of the cavity is comparatively good. I have seen it last for many years on the crowns of molars, when in the same mouth it would melt away from the cervical wall, in proximal and buccal cavities, in a few months. I remember, when I first began practice, I was taught to believe that all failures were caused by defective manipulation. This belief we, of course, conveyed to patients; but how sadly they have been disappointed. The masses have but little confidence in dentistry—I mean that dentistry that claims to save teeth. For this state of affairs no one is so much to blame as the dentist himself.

If students were taught to use gutta-percha more and gold less in teeth of young persons, and of a frail character, that confidence so much needed by the dentist would be restored. To do this, however, they must learn to successfully fill with it. Careless manipulation and hurried operations will not suffice. My method is to separate the teeth, either with cotton or tape, for a day or two, before the sitting is given to fill. I then adjust the rubber-dam, after which a Perry separator is gently put in place, turning the screws slowly so as to give neither pain nor fear. (I am speaking now of children who, perhaps, have never before been to the dentist.) Prepare the cavities as carefully as you have been taught when introducing gold. Retaining points, however, if used at all are unnecessary with gutta-percha. I then touch the cavity with copal ether varnish, allowing a few seconds for the evaporation. This is so thin and transparent that it cannot be seen in the cavity, but its surface will be a little sticky, assisting materially in holding the first pieces of gutta-percha in position. This, of course, should be of good quality. Great care should be taken to not overheat the gutta-percha, as it becomes brittle. I usually pack with a warm instrument, but just the requisite heat is required to prevent it from sticking. A cold burnisher is held on the filling till it is cool, and then it should be as carefully trimmed as you would finish gold. This work, if the cavities are small and the closing of the space obtained hides them, thus preventing attrition or wear in mastication, will give most marvelous results. In no case, however, is the patient to be told that the work is permanent and will last a lifetime, but must be instructed to have them examined every six months or a year. I do not mean that such work will need renewing in that time, but the fault heretofore has been that dentists have given patients the assurance that their operations

were everlasting, and that is why we suffer by the lack of confidence the masses have with us. One great fault with the average dentist is that he has looked on gutta-percha as temporary and little better than wax. He has had no confidence himself with this material as a filling, and consequently has not made a charge for it, equal to its worth. Dr. Flagg stated in his address before the Odontological Society, that his charges or earnings when manipulating the plastics were, or should be, equal to the best gold operators. Claiming, of course, the shorter time consumed in favor of the former materials and the greater good conferred on the greater number thus bringing dentistry to that standard of excellence by which the poor as well as the rich could be benefited.

The ITEMS is everlastingly hammering at the sluggards in the profession, and I hope its good advice may bear fruit. We are such a bigoted, headstrong lot, however, unwilling to learn or investigate, that the editor of the ITEMS, I fear, will go under before he can make a respectable lot out of us. No amount of talk or teaching will make good dentists of those who know it all. A man can never get too old to learn. Then there are the dirty and untidy, with no order or system in their offices. I have often remarked that I could judge a dentist by a glance into his laboratory or operating case. If his instruments are rusty and dull, his operations will show like conditions.

The reader must not take this article as advocating the exclusive use of gutta-percha or any particular filling material. They all are best in their proper places. Proximal gold fillings in the teeth of the requisite texture and quality will last many years. It is the want of proper discrimination, and the continued belief of many patients, that going to the dentist once is to finish the job for all time. The fault is with the dentist; we have talked for years about "permanent" fillings. I think the word should be erased from our vocabulary. Gutta-percha, undoubtedly, is not as easily put in as the "insoluble" (?) oxiphosphate or amalgam, but its insolubility is so wonderful we might say it is almost permanent. The President of the Postal Telegraph Company, I do not recall his name, has recently said, in reference to the coating of the commercial Atlantic cable, which has just been laid, that the gutta-percha as a protection to the cable lying in the bed of the ocean was "absolutely indestructable." The knowledge that we have a substance of this kind, non-conductive, non-irritant, compatible with tooth bone, thus causing no electro-chemical action, it having already been tested in the mouth sufficient to prove its superior qualities, and as the able gentlemen who originated the "New Departure Creed" have said, "It is the most permanent filling material we possess," to

deprive our patients of the benefit of this material is not to do our best for the preservation of their teeth. The cost of this material to the dentist is comparatively insignificant. In England it is cheaper than it is here, as it goes into that country free of duty. This is one reason why all of our long ocean cables have been made in London, as the insulation takes large quantities of it. It is to be hoped that dentists will stop telling their patients of permanent fillings. This is the one great cause why so few of the population patronize the dentist. A man sends his son or daughter to have their teeth put in order; his idea is that the permanent work will at least bear some claim to the name, but in two or three years he finds that the teeth have actually melted away from the beautiful gold jewels that were inserted and for which he paid so highly. He still may have courage, but he condemns that dentist and seeks another who, if he be a mercenary idiot, will condemn the former work, though his own skill as a gold manipulator is perhaps far inferior. The work done by this one also fails. Now, is it a wonder that the people have no confidence in dental operations? The fault lies with the dentist. We do not instruct our patients rightly. Improvement is the practical watchword of the age; let us break away from the theories and beliefs of the past, especially those that have betrayed our confidence and not stood the test.

PENTAL.

Dr. E. D. Eddy, San Francisco, Cal.

Read before the Mid-Winter Fair Dental Congress.

Pure tertiary amylene has been named by Dr. Von Mering "Pental." The drug was formerly known as tri-methethylen, and later as isoamylene, but under these names it was still in a crude and impure condition; though first prepared by Calhoun in the year 1843 or 1844, it was not till 1891 that a chemically pure product was made possible by a formula prepared by the eminent German scientist, Prof. J. Von Mering.

The original preparation was prepared by the direct action of sulfuric acid on amyl alcohol; by this method there was a small residue of the fusil oil that could not be eliminated, hence it never reached beyond the experimental stage as an anesthetic, and was the cause of many fatalities during the years from 1844 to 1858. After the latter date we find no mention of the drug in scientific journals as an anesthetic, up to the time Prof. Von Mering succeeded in making a chemically pure article by reducing the amyl alcohol to a hydrate and then heating with a compound acid.

Pental is now exclusively prepared at the great alcohol laboratories of C. A. F. Kahlbaum, Berlin, Germany. The symbols of the elements involved are represented by C. 5 H. 10. It is a perfectly limpid liquid exceedingly volatile and very inflammable. It burns with an illuminating flame, and leaves no residue when burned from platinum foil. It has a low specific gravity with a constant boiling point of 102 F.; is insoluble in water, and does not decompose when exposed to the air. When inhaled it does not inflame or in any manner irritate the mucous surfaces with which it comes in contact; hence neusea and other distressing after effects are avoided.

In a reasonably healthy subject the heart or respiration is not in the least disturbed. The time required to anesthetize a subject rarely exceeds two minutes, and often thirty seconds are sufficient. The return to consciousness is immediate and complete.

Dr. Von Mering is a very able chemist and an expert pathologist. When he said in 1891: "I am convinced that pental, chemically pure, is by far the safest and best anesthetic for short operations of which we have any knowledge," I know that his words meant something, for he is very conservative. That there is an element of danger to life in all anesthetics, I fully believe, and they should never be administered carelessly how ever safe they appear to be. The moment the danger signals appear, the dentist should be on the alert; and the fact that they do appear, should make us always careful. That pental is less likely to produce these danger signals than any substance heretofore used is certain. I have had sufficient experience with pental, gas, chloroform and ether to have reached this conclusion by comparison.

The chief advantages of pental are: 1st. Certainty of a painless operation. 2d. Speed. 3d. The immediate and complete recovery of the patient. 4th. Simplicity.

Pental can be applied in all respects the same as you give chloroform. As a means of economy, Junkers' inhaler is the best apparatus for its administration.

The first permanent molars are the most important teeth to be preserved. The mouths of the great duct of Steno, which supply saliva to the mouth, are opposite the first molars. They are in the center of the arch, and in the course of mastication, by the force of the movement of the jaws, we have constantly on the glands the pumping action of the masseter muscle. It forces a stream of saliva into the mouth opposite these teeth. Their removal materially interferes with insalivation.

NEURALGIA AND THE TEETH.

J. W. Combs, D.D.S.

Neuralgia is a symptom ; an effect, not a cause ; presenting no manifestation of any lesion, usually as the seat of pain ; being only a nervous condition, but accompanied by tenderness either to associated part, or from discord as a result of constant and severe pain. It is usually local, may be metastatic, in paroxysms and remittent, but more commonly intermittent, presenting no indications or symptoms of local perversion of the tissues, except pain or soreness. We sometimes find a congestion or inflammation of the nerve or its sheath or covering, when it is more properly a neuritis. Neuralgia, then, is principally a manifestation of perversion in some remote part.

Hence, our first duty is to locate its cause and remove it, if possible, instead of simply calling it "neuralgia," and if not finding its cause in a bad tooth, to give some nerveine. It is our especial duty to tell when it is caused by a bad condition of the teeth or mouth.

We may sometimes find difficulty in distinguishing neuralgia from rheumatism. In rheumatism there is always local inflammation, pain more diffused, and more of a soreness generally remittent, not paroxysmal or short, acute and concentrated ; being aggravated by movement and change of temperature, and has a great tendency to change sides of face suddenly without apparent cause. The trouble in diagnoses comes when we have neuralgia in a rheumatic patient ; but then we should be able to say just to what extent each prevails. We often have to treat cases experimentally, but we can generally tell the cause, as of an exposed nerve of a tooth. Of course, we naturally first look in the part where the pain is located, then in the parts most closely connected to it by the nervous system. Neuralgia of the dental region is caused by the decay of a tooth, or by exostosis pressing on nerves in the periosteum or soft parts of the gum or the adjoining root nerve. In both instances it is caused by nerve irritation.

But let us treat for the present its relation to the teeth. It is our duty to search for caries, pulpitis, nodules, periostitis, dead teeth, loose teeth, necrosis, supernumerary teeth, exposed cementum, remaining roots of previously extracted teeth, exostosis of teeth or alveola, pressure of adjoining teeth, malpositions of teeth, loss of antagonizing teeth, etc., and relieve or remove the cause. It would require too much time for me to treat each exciting cause separately.

It is important not only to know what may cause neuralgia, but also where we are most apt to find its manifestations. It is usually about the face and head, as the temples, eyes, eyeballs, ears, cheeks, jaws, teeth, scalp, and neck. The opportunity is seldom presented to us to thus display our skill, unless the patient "suspects" the teeth as the cause, hence we are limited mostly to facial neuralgia, especially *tic dolooureux* and dental neuralgia. If we cannot find the cause of irritation, after thorough examination, we are driven from scientific and definite, to empiric and indefinite treatment. We may, however, use such means to sooth and quiet the effected part. When we can find no derangement beyond a general nervous disturbance, properly selected nervines act magically. To relieve the intense pain I often give antipyrène or phenacitine in 10-grain doses, not to be repeated oftener than in two or three hours. But when I desire a continuous impression, I give bromid. pot. in $\frac{1}{2}$ grs., from 2 to 5 or 10 hours apart, as necessary; or equal parts of gentian and valerian tinctures, two teaspoonsful each; or better, elix. guana and celery, $\frac{1}{4}$ teaspoonful every two or four hours to keep easy. I have found the combination of aconit and digitalis (trs.) in elix. brom. pot. to quiet and relieve.

As a local application, I have used heat in some form with good results more than anything else, but sometimes ice is useful. To the inflamed and painful parts, I often use rx. iodin, tr. glycerin, and champho-phenique, equal parts of each; mx, et signa. Paint or apply to parts 2 to 4 times daily till relieved. Where to be used on skin I add aconit and belladonna trs. in half the quantity of the others. Iodin is especially indicated where there is swelling or deposits, but not suppuration. In all cases treated systematically I give a cathartic, "salts" preferable. I have used successfully the hypodermics of morphia and atropia, especially in *tic dolooureux*, but would not encourage the use of it in unskilful hands.

It is not so much the amount of work we do as the amount of brains we put in it that tells. We sometimes think that it is not the workers that get rich, but the lookers-on. No, not they; but perhaps they that seem to look on,—the thoughtful men, who plan what thoughtless men do. The hod-carrier puts muscles into the building, the architect puts brains in it; and though the architect seems only to look on, he is so essential to the building we pay him many times more than we pay the hod-carrier.

If we would have high remuneration for our work, we must be artificers, and not mere laborers; put brains into it; make our work artistic, skilful, valuable; and especially we must do something the masses cannot do.

CURRENT THOUGHTS.

THE PROFESSIONAL PATH.

Response to a Toast at the Annual Banquet of the Alumni Association of the Chicago College of Dental Surgery.

The professional road: It is so broad and enticing at its entrance, so narrow and stifling at its end; so thronged at the outset with aspirants who early fall by the way; so lonely and untenanted at its extremity, save by the shadows and ghosts of the zealous throngs which entered its gates. Ah, these are perilous passages, and he who threads their dark mazes will find himself accompanied on the right-hand and the left by pain, and toil, and weariness, too often tormented by hunger, and thirst, and loneliness, the gaol, like the mirage of the desert, constantly shifting its position and cheating with hope deferred, till despair has seized the weary pilgrim, and he curses the day in which he set out on his perilous quest. And yet, what young professional man, who is worthy the name, does not desire to test the dangers and difficulties which he knows will beset him?

There are three great incentives which prompt the young graduate to labor and study. The first, the noblest, the highest, is a love for scientific investigation; an earnest desire to acquire information; an overpowering thirst for knowledge; a craving for intelligence and light. When a young man is impelled by this feeling, there are no heights that he will not scale. The obstacles that he encounters become spurs to yet greater efforts. His highest pleasure is obtained in a gratification of this insatiable thirst for knowledge. The ordinary pursuits of men seem trivial to him, and the results of their toil unsatisfying. The enjoyment which his books, his studies, his investigations bring to him, far exceeds that which the mere gratification of bodily appetites can give. Such a man enjoys more than he who spends his time in pandering to his selfish appetites, because his gratification is intellectual, and therefore purer and more lasting.

The satisfaction of a man who indulges a mere bodily appetite, or who gratifies a gross sense, ends with the moment; but he who has mastered something new in science, who has obtained another thought, has laid up for himself pleasures that will return again and again, each time with added zest, and which will propagate other delights and assist in bringing new joys. Hence, the pleasures are constantly increasing, and the capacity for enjoy-

ment ever growing. There is no satiety, no cloying of the appetite, no dulling of the sensibilities.

The second great incentive is the love of approbation ; a desire for the good opinion of others ; the ambition to receive the plaudits of men ; in other words, the thirst for fame. When this is legitimate, and the object is really to deserve to be well spoken of, there is nothing more ennobling. But the mere craving for applause, the hungering to occupy places of honor because of the power which they will confer, or the homage which they may exact, or the acclamation which may be won through them, is the most despicable of ambitions. Some of the greatest crimes against humanity have been committed, that aspirations for place and power and plaudits might be gratified. The desire to be respected, and to receive the proofs that he possesses the confidence and affection and good-will of his fellows, is a most worthy ambition, and hence, when positions of honor and power are spontaneously offered, the recipient has a right to be gratified. But when they are the results of falsehood and duplicity, of bargaining and self-seeking, they become but badges of dishonor, and really disgrace him who bears them. We have seen men debase themselves by a thousand little petty meannesses, by deceit and fraud and imposture, that they might compass some office in a professional society or meeting, selling out their manhood for the mere semblance of honor, and to obtain the affirmative voices of men, who can but despise them in their hearts. When this is the incitement to professional or other ambition, the path that leads to an enduring fame has been widely missed.

There is yet another stimulus to exertion, and that is the desire to acquire wealth. So long as this is held in subjection to other ends, the ambition is a worthy one. But when a professional or other man makes this his first object in life, and is actuated only by selfish and sordid considerations, he becomes an object of contempt. A professional man, if he is worthy his calling, seeks to benefit his fellows by the exercise of his vocation. He realizes that his gifts and knowledge have not been conferred on him for his sole benefit. While he is entitled to a just remuneration for his services and time, he also owes to mankind a professional debt, and the poor and needy are entitled to a share of his attention, regardless of fees. The path to honor and fame has ever been closed to those who shut their hearts against their fellow-men. The door is opened only to such as will employ their knowledge and power in the service of others.

Especially is this true in all departments of medicine. When on a man is bestowed the gift to heal the sick and bring relief from

pain, a great weight of obligation rests on him to use it for the good of all. The Apostle Paul, who went about doing good, sternly rebuked the sordid wretch, who for money sought to obtain this power, that he might use it for his own selfish purposes, and every practitioner in any branch of medicine should heed the lesson, remembering that honor comes not to him who most assiduously seeks it, but visits those who

“Do good by stealth and blush to find it Fame;”

knocks at the door of the man who honestly does his duty, actuated by high and noble purposes, cheered and sustained by the consciousness that he has at last earned the good-will of his fellows.

“Honor and shame from no condition rise;
Act well your part; there all the honor lies.”



THE USE OF SODIUM PEROXID.

The following are a few of the cases of longest standing, and up to now have proven entirely successful:

April, 1893. Case 1.—Mr. B: Right lower molar abscessed; no fistulous opening; treated at one sitting, flooding cavity and roots with fifty per cent sodium peroxid; washed, and dried with hot-air syringe, then filled apical foramen and roots, and with tri-chlorotic acid bleaching teeth nicely.

Case 2.—John W.: Upper right bicuspid, foul pulp canal. Treated and filled at one sitting with Dr. Schrier's preparation.

Case 3.—Charles T.: Lower left 6th year molar, foul pump canal; no soreness; adjusted rubber-dam, flooded tooth with sodium peroxid, washed out thoroughly, dried with hot-air syringe, and filled at same sitting.

Case 4.—Mrs. L. L.: First upper bicuspid; abscess discharging through tooth, and fistulous opening; contents very foul; made free opening into canals; adjusted dam, treated with Dr. Schrier's preparation, and filled immediately. Two weeks later, same patient; cicatrix had formed over fistulous opening; tooth solid, and doing good service.

Case 5.—Mrs. G. L. H.: Left lower molar; foul pump canal; tooth somewhat sore; treated and filled at one sitting, using sodium peroxid.

Case 6.—Miss Ella N.: Lower molar containing filling; pulp had died; had suffered for a week; tooth very sore. Removed filling, made free opening into chamber and canals, adjusted rubber-dam, flooded sodium peroxid into roots, pumping in thoroughly with naked broach, cleansing at same time; then washed thoroughly with warm water, dried with absorbent cotton and hot air, and filled immediately. Time consumed in entire operation, an hour. Have seen the tooth several times since, and it has given no pain.

Case 7.—W. L.: Front incisor, with "blind abscess;" tooth sore, and considerable pain; cleaned orifice of canal, adjusted dam, introduced twenty-five per cent etherial pyrozone to end of root, left a few minutes; and repeated till all discharge ceased; sprayed three per cent of pyrozone, dried thoroughly, and sealed at once with cotton moistened in alcohol, and wax over that. Pain all gone before leaving chair. Dismissed for two days, preparatory to putting on artificial crown, which was done soon afterward, with satisfactory results.

Case 8.—Miss Lucy S.: Right upper sixth year molar; had been aching, and sore; removed filling, and found pulp dead, and canal foul; no fistulous opening; sprayed roots with five per cent pyrozone; afterward washed with three per cent pyrozone, then carried sodium peroxid to end of two roots; could not find opening into one of the buccal roots; dried with cotton and hot air, and filled immediately. Tooth comfortable at end of operation, and has remained so ever since.

Case 9.—Miss O.: Lower cuspid abscessed and paining; no fistulous opening; treated with Dr. Schrier's preparation; filled temporarily with cotton and wax; following day filled permanently, after again treating. There was no evidence of pus.

I could go on giving you case after case of teeth thus treated, extending over fourteen months. I keep an account of all my cases treated with these preparations, since first beginning their use, and always describe conditions actually as presented, and note results. In this way I have been able to give you accurate information.

Very dark and highly-discolored teeth can be satisfactorily restored to a good color by the use of these agents. Of course no one would attempt to use them without first acquainting themselves with their chemical properties, because great care should always be exercised, not to allow any of them to reach the mucous surfaces, except the three per cent or aqueous solution of pyrozone, which is harmless, but a very effective mouth wash.

FILLING CHILDREN'S TEETH.

Dr. W. G. A. Bonwill.

I never use gold in the temporary teeth, seldom amalgam or tin, save on grinding surfaces, when cavities are very small or very large and no pulp involved in the part, and oxiphosphate very seldom, and only where I can keep it perfectly dry. Not that any of these articles are not valuable, but the preparation of cavities and the situation of decay, the near approach to the pulp of nearly every proximal decay, and the age of the subject preclude their use. Never demoralize any youthful client by much excavation or formidable show of instruments, or by slow, sluggish movements. My aim is expedition; as few minutes in the chair as possible; inflicting but little pain and inconvenience,—gentleness, kindness, and yet positiveness.

My greatest ally as the filling-material is pink gutta-percha, such as is used for base-plate. Aside from its use for a stopping on all proximal surfaces, there is one grand object in view to be ever held in mind, the importance of the position of the first permanent molar when it emerges. Unless this base column, or abutment if you please, is not kept well back toward the ramus then irregularity will come to the incisors. It is not enough to merely stop decay and stuff in amalgam or oxiphosphate; we must keep the temporary molars from approaching each other more than normal, and prevent the alveolar processes from encroachment and absorption from direct pressure of the roots of the temporary molars, which is invariably the case when the proximating surfaces are cut by caries and allowed to trespass on each other. We cannot use a separator here to gain space; we dare not shape the cavities for a metal filling for fear of the pulp. What is to be done?

If possible, as soon as the least decay is noticed on the proximal surfaces and you can get in from the crown or on the buccal sides with the least excavating, by hand or machine, if it must be used, whether you can keep the cavity dry or allow it to remain moist, stuff in the gutta-percha forcibly between the teeth, smooth, and let alone to watch every three or six months. Where the cavities are large when you first see them, remove no decay over the pulp. Break down all superfluous walls, saturate with carbolic acid or creasote, force in a lump of the gutta-percha by filling all space as one filling, and let it go till the teeth have become so far separated by the act of mastication—not by expansion of the material—as to have replaced with another or a patch on the surface.

Now, here is the point I wish to make that you have never recognized as a factor, because you have ignored the laws of articulation.

By this means I save from future decay and the risk of pulp exposure; but above all else I give a condition that enables the child to use with impunity every part of the jaws with hard or soft food, and no pain or fear of it, which no other plan could offer. And, above all this, I drive the first permanent molar so much farther back on the ramus that, the nearer it is to the condyle or point of motion, the wider it keeps the jaws apart at the incisors, and prevents the too great encroachment of the lower on the palatal surfaces of the upper incisors, which, if allowed, would destroy normal articulation,—make too deep an overbite and underbite, and, withal, cause an overlapping of the inferior incisors and the full use of the jaw teeth, because, in the lateral movements of the lower jaw, the incisors would strike first too long before the molars could come in contact, and really, only the up-and-down movement could be attained.

You will admit that recurrence of decay at the cervical border gives you the greatest difficulty to surmount, and as yet you have not reached the cause nor the remedy. If this one thing alone can be mastered, we have overcome our most powerful foe.

It is a fact not to be denied that every dentist cries out for some method to prevent recurrence at the cervix. This is positive proof that every one has his hands full of proximal cavities from the cuspid back. Every one must admit that contour fillings alone have been the only help or partial cure, though it has to be repeated or requires oft patching.

A case presents where caries have run wild. Not a proximal surface scarcely but is involved. No pulps quite exposed, but threatening. Every tooth has been filled and refilled, and by more than one dentist. Contour has been attempted. Where the fillings of gold remain they are so undermined there is nothing but utter annihilation unless all are removed. The teeth, from their loss of proximate surfaces, are all out of articulation, which can be best seen by taking an impression and putting the casts in my articulator. Look closely at the cervix, and you will find the root of each so close that no thread can be forced through, and the decay is far up under the cervix. Look further, and probe for the alveolar process, and not a vestige of it remains for a quarter of an inch up. Look also to the second molar where the first has been extracted. On that side the process is gone far down and nothing but loose gum tissue remains, and is constantly receding, and wherever a tooth has been lost the process about the cervix absorbs as the body of the jaw absorbs.

In this state of affairs you put on your dam and separator, and you obtain a slight widening and at once fill permanently the excavated tooth. No attention is paid to the articulation of the teeth. You have no desire to wait, and you rush on headlong to fill and get your pay. The rest of the teeth are left without anything in them till one by one you have had your patient at least twice a week for months, two hours or more at a sitting, till they are exhausted and condemn dentistry, and while you are rushing through to complete every cavity with a filling you have done nothing to prevent further rapid decay, and pulps become exposed and the patient has to suffer.

Now, I know this is the case with nearly every man's practice. I see it every week, and I know from personal contact in conversations with patients of others who have not come to me for treatment.

Now, you can do better than this, and not only retain your patients but bridge over time as well as space, and fill and treat at your leisure.

I will take the same mouth just illustrated, and without placing in one single permanent filling of any kind of metal, treat it with pink gutta-percha alone, with a little of the white as a facing, where necessary. I cut out only partially the cavities on one side of the jaw or jaws, always exposing every grinding surface where the proximal is gone, and make compound by running all of the cavities into one, seldom leaving any proximal cavity to stand alone, but opening it into the grinding surfaces. This is a cardinal principle with me. There is one surface or border I complete at once, and that is the cervical, so that I never have to touch it again, and this I cut so far up as to not only remove all caries, but where I know the gum and process will grow up and over it. This is finished, and to enable me to do so I forgot to say I never put on the rubber-dam in any case till, I fill permanently, when the cervix is firm and will admit of its adjustment. It is easy to stop the blood with perchlorid of iron, creasote, or any styptic.

And now for further treatment. Into all the spaces I have made on one or more sides in one or more teeth I place great pieces of pink gutta-percha, and with no separation between them in any case, stuff the whole intervening space, trim, and let alone. This I do till every place is filled in. I dismiss the patient, and have him call in three or six months or a year, as I may please; and, as I find the teeth wide enough apart for a plus-contour filling, and the alveolar gum border and process is in perfect health, and the process has grown up to the gutta-percha, then I fill only those that show that they are far enough apart at the cervix to permit a

healthy, full process to grow, in order that the gum will have proper substance, and cleave to the root and cover up and over the margin of the filling at the cervix. In this, I tell you, is your future security at the alveolar border.

No one has ever called attention to the difference in width of the proximal spaces at the cervix for the bicuspid and molars. The gutta-percha should remain in till double the width or space is gained between the molars than the bicuspid, on account of the greater size of the molars, where more proximal surface is in contact and no room left for cleansing, unless the spaces are very much greater than normal, and the contour made to suit this issue. Here is where you will say, "You will destroy the articulation and cause greater strain on the fillings and also the teeth." No; you are mistaken. When the whole of these proximal surfaces are filled with the semi-elastic stopping, and the act of mastication set up, the teeth that at first are out of the normal position and only touch on part of their crown surfaces are now allowed to readjust themselves; as the gutta-percha will give where the greatest pressure is brought to bear, and where least resistance is offered, no change occurs. I am not mistaken in this. Try it, and watch a few cases if you cannot believe me.

This method is a test for any further treatment, which, if needed, can so easily be done. It permits of weeks, months, and years before the permanent filling need be introduced. No danger of decay, none of loss of structure from fracture. And, in fact, you can dismiss the patients thus treated with the greatest indifference as to the issue. Do you ask whether I charge for all this work, and when I send in my bill? I charge for even my thoughts as well as my work. My patients never object, but often beg me to leave in the gutta-percha.

Thus I practice with all; and I am happy in this, knowing that I do far more good, am not troubled about immediate root filling, —fillings falling out,—“conservative treatment of dental pulp.” Nor does pyorrhea ever invade on my domain of original work, because I know the value of articulation, and how to make every tooth perform its individual and collective function, and no undue pressure given it to press or work its life out of it and give rise to the denudation of the periodontal membrane; nor is the food ever found pressing up into the cervical border and remaining, nor the cervix so weakened by want of contact with firm alveolar processes, and the gum is left to hug the root at this vital portion so tightly that nothing ever creeps in to cause recurrence at the cervix.

Any dentist who allows his original patient who follows orders to have pyorrhea should be sued for damages. See that no

food presses on the gum border; see that no tooth is unduly pressed and contorted by false articulation, caused by improper width and contouring; allow no biting of threads, cracking of nuts, biting of ice on one tooth only; or, when a tooth, or teeth, has been lost, see that the articulation is restored,—and my word for it, gout or no gout, syphilis or disease, pyorrhea will not come, except filth and malaise of one or more teeth.

Gutta-percha used as a matrix for gold, amalgam, or oxiphosphate fillings I will not dwell on; you need nothing better. For holding teeth in position after correction where there are cavities in both, I need only mention it. As for assistance on the temporary and permanent teeth, to keep the ligature from slipping down on the cervix by carrying the ligature through it; for fastening pins into roots for crowns; as a medium between crowns and roots to prevent further caries; as a protection to all roots when a gold crown is used; and, in fact, as a factor in our practice, there is nothing to fill its place.

In only one instance it will not do. Never place it in contact with an amalgam filling, especially when it is covered up over a nearly exposed pulp, for it will oxidize the amalgam and discolor it and make it valueless at the margins. White gutta-percha is not so. The sulfur in the pink will do the work; hence I say this contact with amalgam is a failure. I am in love with it, and without it I would be lost.

International.

SURGICAL PATHOLOGY.

Many of our schools have not given the attention to surgical pathology that is its due. In some there is no real comprehensive course of lectures on this subject, the usual diseases of the teeth themselves comprising the instruction in this department, surgery of the jaws and face being entirely relegated to the general practitioner. There is some excuse for this in the fact that our curriculum is already so broad that it is difficult in a term of six months to find time for the other lectures and demonstrations. Yet the dentist certainly should be able to diagnose any diseased condition, even though he should desire to turn it over to a specialist.

But there are some conditions requiring surgical interference that should never be allowed to go out of the dentist's hands. One of these is caries of the alveolus. This is a disease that is far more common than the average dentist is aware of. By it is meant the death and disintegration of the alveolar portions of the bone, cell by cell, and without any serious complications. It differs from

necrosis in that there is not usually any formation of pus, or at least but little, no special tumefaction or inflammation of the soft tissues, and no tendency toward a sequestrum. In necrosis there is a stoppage of nutrition throughout a considerable portion of the osseous tissue, while in caries it is a slowly progressing osteitis that breaks down the bone one cell at a time.

Not infrequently in the filling of cavities in proximate surfaces of the teeth, which extend well up in the cervical region, the alveolus between them is injured by wedges, or matrices, or separators, and this induces an osteitis which results in a caries that causes the loss of the whole of the septum. It is at best but a thin lamina, and hence is specially liable to loss of nutrition through injury. We have known cases in which true necrosis has been the result of such injuries, and a real sequestrum of bone has exfoliated.

Sometimes when there has been violent periostitis about a tooth root, the inflammation has spread to the bone and a carious action been set up. In many instances this will continue after extraction. The cavity perhaps will not fill up by organization of the plastic exudate, the gum will not heal over, and a small cavity will be left. There will be little of inflammation or soreness, and the attention of the patient will not be called to it till the cavity has assumed considerable proportions. If, then, an examination be made with an exploring instrument, the bone will be found bare, and it will be soft and spongy. It will not feel precisely like necrotic bone, but the difference between this and sound tissue can be readily recognized.

A carious condition of the alveolus will sometimes be the result of an anemic or atonic state. It may be indicative of an inherited syphilitic taint. Of course, it will be most often found in those who are in a debilitated state. The dentist should always examine for this when such patients who have been subjected to dental operations fall into his hands. It may be that he will need to scrutinize closely, for sometimes it is not very manifest.

The treatment, of course, is carefully to remove that which is carious and spongy, apply antiseptics, these to be followed by stimulating applications, like iodid and chlorid of zinc, ten to twenty grains to the ounce of water. If the caries is at all extensive, the patient will probably be in an atonic condition, and alteratives, with liberal diet and careful hygienic precautions should be prescribed. Preparations of iron may be administered. The hypophosphites are useful, and tonics generally. If there is reason to suspect any constitutional taint, iodid of potassium may be prescribed, or the syrup of iodid of iron, from twenty to forty drops three times per day.

Ed. in Practitioner.

NITRAT OF SILVER AND ITS APPLICATION IN DISEASED CONDITIONS OF THE MOUTH AND TEETH.

J. M. Parker, Goldsboro, N. C.

Nitrat of silver is conceded to rank as one of the most efficient and reliable remedies in medicine and surgery, and when its merits are fully known, we believe that it will be found equally efficient in a large class of diseases of the teeth.

A saturated solution of nitrat of silver I have used with much satisfaction on diseased pulps, since the beginning of my practice of dentistry. Especially well does it act on exposed nerves of temporary teeth when divitalization is necessary. It does not penetrate them as does carbolic acid, nor does it involve the entire pulp in an inflammatory process, as does arsenious acid.

Sometimes you could not well use the solution, because of inability to dry the cavity sufficiently to let the remedy do its work. Then the powdered crystals can be used with advantage.

With a child suffering with sensitive dentine with teeth inclined to ache, where there seems to be some abrasion, nothing acts so well as a solution applied on the surface after having been dried with chloroform and alcohol. Blow hot air over this surface, thereby making the nitrat of silver sink into the tubuli of the dentine. Flow over this dry surface oxiphosphate. To illustrate this, take strong solution of nitrat of silver and put a drop on a piece of hard or glazed paper, and you will see when evaporation of water takes place how much of the silver is left, and how it seems to adhere to the smooth surface.

In badly-decayed and broken-down teeth and roots with dead nerves or live nerves, nothing is more sure to act as a preserver to the seeming disintegrated gum margins and roots of teeth than this strong solution of nitrat of silver. Here I first use chloroform and alcohol to drive off all moisture and take out, as far as possible, all infiltrated impurities in the dentine, and then apply the nitrat solution and again dry and fill as you see fit, or as the case demands.

When a child's teeth are to be treated, and it cannot be kept quiet long enough to dry the mouth, I use heated gutta-percha, first, bringing it in touch with powdered nitrat of silver, or, if this cannot be made to stick, use cotton slightly filled with sandarac, varnish with nitrat of silver powder on this. In a week this can be removed, if it is still in place, and a more permanent application made. In three months' time, on removal of this, to

put in permanent filling, the cavity will be found black and hard, and with no sensation on being cut.

When extreme sensitiveness about the necks of the teeth, at the margin of the gums, where the tendency is to softening of the tissues of the tooth, a condition very annoying to the patient, and troublesome to the dentist, nitrat of silver has proved more successful with me than any other remedy in checking the progress of the disease and relieving the patient. It may be applied to the sensitive part without pain to the patient. The use of the strong solution is best here, because it will adhere to the parts, and after it is dried, soft oxiphosphate can be flowed over it to hold it in place and prevent contact with the soft tissues. In erosion, or wasting of the teeth, the strong solution is applied to the affected parts, and after being dried covered with cement till it is firmly established in the dentine.

Where the progress of the disease has gone so far as to require restoration by filling, this preliminary treatment is beneficial in preventing a further waste of the tooth substance and consequent failure of the operation. In superficial decay in soft teeth, where dark surfaces are not objectionable, nitrat of silver is admirable. By removing the softened portion of the tooth, polishing the surface and applying the saturated solution, giving it time to dry in and varnishing its parts to protect till taken into the organic structure, you will have a dense, hard surface free from sensitiveness. In filling cavities, having an excess of organic matter, an application of a four per cent solution of nitrat of silver, after having the cavity bathed with absolute alcohol, will effectually prevent after-sensitiveness. This treatment will result, at all times, in a darkish hue to the walls of the filling. This, I explain to the patients, that they may know that it results from the treatment, and it is a proper and favorable condition for permanency of the operation. Also, in crowns and bridges where the dentine is uncovered, it is beneficial to use this remedy on the teeth and roots, used to sustain the crown or bridge as a protection against chemical changes or decay.

In badly broken-down teeth with cavities extending below the gum, and when it is impossible to use the rubber-dam and the matrix, and a leakage of the surrounding tissues is liable to enter the cavity while introducing the filling and injure the permanency of the operation, cauterize with nitrat of silver.

In pyorrhea, after the deposits from the roots of the teeth are removed, a very strong solution applied on cotton has proved more beneficial than any remedy I have tried. Gently pressing the cotton between the teeth and allowing it to remain a few

minutes is sufficient, and then washing the parts with water by syringe.

Sometimes after extirpation of pulps we find the root canals very sensitive, at or near the apex especially. A strong solution of the nitrat of silver, say with just enough water to dissolve the crystal, carried to the roots and hot air applied, and then left sealed up in the roots for several hours, usually relieves the trouble and the cavity can be filled without pain or danger of abscess.

By utilizing this simple, though honest remedy, with the forces of nature, combined with common sense and perseverance, we may accomplish much. And when we have been successful with any remedy, if it is only to assist in changing a broken down and seemingly worthless member of the "dental family" into an honest and peaceful citizen, we have done much. *Southern.*

WE MUST HELP ONE ANOTHER.

W. Irving Thayer, M.D., D.D.S., Williamsburg, Mass.

Among the marvels of a wise Creator are the countless living souls with a multiplicity of ideas and innumerable doctrines, fancies, and fictions. Truly we are "many men of many minds." It is well that it is so; for, should every mind grasp teachings precisely alike, where would contrast begin, and valuable principles have any birth?

All improvement, all advancement would be dwarfed, limited, circumscribed. Therefore, it is well that men view things and facts in a different light. Some there are whose radius is many degrees larger than that of some other man. If my comprehension is astigmatic, and the rays of facts converge having two linear images at right angles with each other, so that I cannot see the white and black lines of truth as plainly as other intellects around me, or see them distorted, shall I insist that others must see them as I see them? Or that God did not make my brother more perfect than he made me? Nay! verily. It may be that I do not comprehend my defect. This makes my position the more pitiable.

Then, since there is a diversity of gifts, and a "diversity of operations, but by the same God which worketh all in all," and "the manifestation of the Spirit is given to every man to profit withal" let us have the charity that makes us humble, teachable and kind.

One man may have the words of wisdom, another of knowledge, a third the gift of healing,—one prophecies, another has divers kind of tongues, while another can interpret those tongues,—but all are from “the self-same Spirit, dividing to every man severally as He will,” so that on all of us they come as showers of blessing from Him who loves us and whom we should love.

Are we the children of circumstance? We are, to a large extent. We are each, however, much more the maker of our own destiny, and the educator, and silent director of our neighbors.

There are noble souls, who are leaving behind them a sweet perfume of helpfulness and sympathy, and they remove many stony obstacles from weary feet.

“None liveth to himself, and none dieth to himself.”

WHAT “KALIUM-NATRIUM” IS.

Kalium and natrium are Latin terms for the alkali metals potassium and sodium. The noted properties are: Its softness, causing it to be easily cut like wax, the rapidity with which its silvery white surface tarnishes when exposed to air, its great lightness (sp. gr. 0.865), causing it to float on water. The most striking of all properties which this metal possesses is its remarkable affinity for oxygen. When a piece of the metal is thrown on water it takes fire and burns with a fine violet flame, floating about as a melted globule on the water's surface, and producing in the act of combination enough heat to kindle the hydrogen as it escapes. The violet color of the flame is caused by the presence of a little potassium in the form of a vapor. The same result occurs if the metal be placed on ice. Caustic potassa, or potassium hydrate, is found in solution. It is a very deliquescent salt, possessing the property of turning red litmus paper blue when dipped in a solution of it.

The metal sodium possesses similar properties to that of potassium, excepting that its affinity for oxygen is less great. Its physical characteristics are also the same, except its specific gravity, which is slightly higher (0.97°), including its melting point ($95^{\circ}\text{C}.$). It does not take fire when thrown in cold water, though it is at once fused by the heat evolved. By holding a lighted match over the globule as it swims on the water, the evolved nitrogen may be ignited, when its flame acquires a bright yellow color from the presence of sodium vapors. By placing the metal on a piece of filtering paper laid on the water, it may be

forced to ignite the hydrogen spontaneously, because the paper retains it in a stationary position, thus preventing it from being rapidly cooled by gliding over the water's surface. The salt formed in solution is identical in properties with the "so-formed" potassium salt.

Owing to the too energetic action of metallic potassium in the presence of moisture, Dr. Schreier observes that its use alone would be attended with danger. He would modify the action of potassium by alloying the metal sodium with it.

Western Dental Journal.

FUNCTION OF THE FIRST PERMANENT MOLAR.—An important function of the first permanent molar is that of fixing the bite. Erupted at a time antedating any of the other permanent teeth, by the time the bicuspidati are erupted it is fully formed and fixed; a bulwark against the forcing backward of the anterior teeth, and holding the maxille apart, so there will be no interference with the proper eruption of the incisors. Interference (unwise) or removal before the eruption of the bicuspidati, permits aberrations in the anterior articulation. Regulating caps, worn as a means of holding apart the jaws in regulating teeth, tend to shorten the exposed portion of its crown, and produce, in a less degree, the same effects. If the cuspidati are the keys of the arch, the first molars are the pillars.

Henry Burckard.

A fossil curiosity in the shape of a mammoth's tooth, was found recently in West Seattle by Joseph S. Richards. The tooth was found at the foot of a bluff, not far from the beach, and was covered with clay at the time, indicating that it had been unearthed by the breaking away of the hill. The crown of the tooth, which was of an oval shape, measured $7\frac{1}{2}$ inches in its largest diameter, $3\frac{1}{2}$ inches in its smallest diameter and 18 inches in circumference. The posterior edge of the tooth was 4 inches in length, the anterior edge 6 inches, the largest circumference 22 inches, and the weight $9\frac{1}{2}$ pounds. It is supposed to be the lower back tooth from the left side of the jaw. The ridges have turned to chaledony, and extend entirely through the tooth, while the material between has the appearance of iron.

Seattle Post-Intelligencer.

If you wish rubber tubing to remain on a tooth without slipping, let some sticky cement dry on the tooth before adjusting the tubing. To hold ligatures, dry, and cover them with sticky cement.

C. H. Thorn.

WHAT DENTISTRY HAS ACHIEVED IN CALIFORNIA.

Dr. Teague says: The combination of platinum and gold, known as colored gold, is the invention of Dr. Charles E. Blake, of San Francisco, as is also the facing of porcelain, backed on platinum shells, for bridge-work. The combination of rubber with gold is the invention of the late Dr. G. W. Cool, of San Francisco. The improvements in crown- and bridge-work known as the Richmond were made by the former San Francisco dentist of that name. The rubber-dam was used by Dr. H. H. Pierson of Sacramento, before Barnum gave it to the profession. The bayonet root-canal drill was invented by Dr. F. A. Brewer, then of San Francisco, now of Fresno; osteoplastic cement by Lindquist, of San Francisco; the gold crown by Dr. J. B. Beers, of the same place. The treatment and cure of pyorrhea was given to the profession of San Francisco years before Dr. Riggs' work was known on this coast. Regulation by silk threads, the use of granulated chlorid of zinc to obtund sensitiveness of dentine, the fixing of natural crowns on foreign roots, the suggestion of outside force by double bandage on the head to reduce protrusion of front teeth, the inlaying and restoration of lost portions of teeth by pieces of artificial or natural teeth, the lining of teeth with gold to prevent amalgam from staining the crown, the perfection of transplantation and replantation, the reduction of elongated teeth and artistic remodeling of natural crowns, the prevention of facial deformity and disfigurement by alveolar abscess discharging through the face, the use of running water to obtund pain, the removal of necrosis by lactic acid, the denudation of surfaces by ammonia to create a healthy granulating surface, the elongation of retracted gums, and last, but equal to any other in importance, the implantation method by Younger,—these are what California has added.

Cosmos.

THE ALMIGHTY'S TREATMENT OF NERVOUS DEBILITY.—When Elijah was utterly depressed in mind, and believed that his brave attempt to create a reformation in Israel had completely failed, and that there was nobody left that cared for the true God, and was ready to die of a broken heart, God gave him a quiet desert far from distraction, then a good sleep, then a comfortable meal, then sleep again, then more food, and then a six weeks' vacation. After that he recovered his spirits and was greatly improved in his religious feeling, his faith in God, as well as in bodily condition. Our religious moods may often depend on the condition of the body, if not our religious life.

The Independent.

DOES GENIUS SHOW INSANITY ?

Dr. Talbot says : Some forms of disease are the result of neuro-logical conditions. Great singers are all geniuses in their way, and genius is now laid down in medicine as a particular form of insanity. A man who is an expert in invention, in art, is suffering from a form of insanity. All his ability runs in one direction. We shall find, if we study the lives of great geniuses, that almost always they are of no account in any other direction than that in which their pre-eminent genius is acknowledged, this particular faculty having been developed abnormally at the expense of the other parts of the brain, which are accordingly weak. If the brain develops in only one direction, the osseous system has to suffer, and accordingly we find arrested development of different parts of the osseous system. If a large nasal cavity, large antra, and large jaws are caused by the fact that the individual began to sing early and in that way developed them, just so we can develop the maxillary system. We doubt the premises, though there are instances in which insane men have some special gift, the great majority of geniuses are wise, well developed, strong-minded men.

ARTIFICIAL PETROLEUM.—It is not perhaps generally known that petroleum can now be produced artificially. The process is very simple, being the distillation in a strong iron vessel under a pressure of 25 atmospheres, of the animal fats and oils at a temperature of 300° C. Under favorable conditions 70 per cent of the fatty oil is transformed into petroleum, which is 90 per cent of the theoretical yield. The product thus obtained has been found to be in every particular identical with natural petroleum. It is suggested that, with modifications of conditions in the process, oils of different grades may be produced.

THE CIGARET HABIT.—To those who have never been under the slavery of the cigaret habit it is a wonder that a man with the intellectual capacity for a successful business career should have such a weak spot in his head as to become a victim of the filthy practice of incessantly puffing away at a little roll of paper filled with all manner of poisonous stuff. Very recently, the newspapers contained an item concerning one of New Haven's best known dentists and society leaders, who was taken to the state insane retreat in Connecticut, as a result of cigaret smoking. Yet boys will pay no heed to such warnings.

Temperance Herald.

RAPID RESPIRATION.

This expedient procures immunity from pain, says Dr. Bonwill. The idea had been ridiculed and its author laughed at, but still it is recognized by the authorities. Brown-Séquard said he knew it was a fact. Every week sees some manifestations of its truth. It is not surprising that dentists should laugh at it and decline to stop using nitrous oxid, for administering which they can get good prices. Rapid breathing produces an analgesic state, where the sense of touch remains intact, but the patient is insensible to pain, and perfectly conscious of what he is doing and what is being done to him. When it is necessary to induce this state, as for the extraction of a tooth, you have only to make the patient breathe rapidly for a little while and you may extract without hurting. While he admires the spirit which claims that chloroform is as safe as any other anesthetic, the fact remains that most authorities have acknowledged that it is not the safest, and he thinks dentists should not use it. The stage of analgesia is always safe.

In rapid respiration, one hundred to the minute, he has had patients to claim they were paralyzed to the elbows. When he first tried chloroform, he saw the analgesia produced in the earlier stage; then he tried electricity by reversing the current from the centers to the periphery, and it relieved pain, giving a greater effect than the other. While operating with electricity he accidentally hurt a patient, and the involuntary deep inspiration which it caused carried his mind back to his boyhood days when he pinched his finger and involuntarily stuck it in his mouth and drew in his breath hard, and the thought of Nature's anesthetic—rapid breathing—dawned on him. He does not use rapid respirations in all his operations on sensitive dentine, but directs the patients to inspire deeply, and as they draw in the air he follows with the instrument. What effect has this rapid breathing on the blood? It simply takes out the carbon. When the patient is breathing normally, and the heart beating seventy to the minute, going from twenty to one hundred inspirations in a minute and a quarter does not increase the heart-pulsations; at least the increase is hardly perceptible. It is not over oxygenating the blood, but it is setting free five times as much carbon dioxid. The best evidence that patients are not hurt is that when it is over they say it must have hurt because they knew what was being done all the time. This method of inducing freedom from pain is a perfectly physiological and normal act. For himself he does not often extract teeth.

OUR QUESTION BOX.

With Replies From The Best Dental Authorities.

[Address all Questions for this Department to Dr. E. N. Francis, Uvalde, Texas.]

Question 168. (a) *Can the absorption of the alveola be hastened after extraction so as to obviate the use of a temporary denture and permit a permanent one to be inserted within a short time?*

(b) *Is this process injurious, and is it better to await the slower process of nature?*

(c) *Would it be wise to trim the alveola, and if so, what instrument should be used?*

(d) *How long after such treatment can the denture be inserted?*

(a) The term cannot be shortened much. The gums will become smoother a little quicker by trimming the sharp projections of the alveola.

(b) More than this I do not consider wise, and prefer the slow process of nature.

(c) Use a bayonet-shaped alveola forcep to trim the sharp projections.

W. F. Schwaner, Winterset, Iowa.

(b) I prefer to rely on the natural process of absorption, and consider any other method unsafe.

(c) The mechanical trimming of the alveola, to fit the mouth at once with a permanent denture, is unwarranted and impracticable. It is better, when possible, to avoid the use of a temporary plate.

E. P. Stiles, D.D.S., Austin, Texas.

(a) (c) Trim the process with alveola cutting forceps. It is not a painful operation, and can be done while the patient is under the anesthetic. In full cases a temporary denture is most satisfactory to patient and dentist.

(d) It is usually necessary to wait three or four months—sometimes six. In partial cases we have had best results by taking the impression and making the plate before the teeth were extracted—inserting it immediately after extracting, and before soreness or inflammation has begun. We have cases of this kind where the plates have been worn eight years and still look well.

Charles B. Baker, Bridgeport, Conn.

(a) I know of nothing that will cause as rapid absorption as wearing a denture. A temporary plate should always be worn, as it not only causes a more even and solid alveola but preserves the muscular control of articulation, which becomes almost completely lost or changed after even a short time without teeth.

(c) I only trim the alveola when all the teeth but one or two have been lost long enough for absorption to take place, leaving a ridge or raised socket for the remaining ones. Then on extracting those remaining you can, with a pair of alveolar forceps, nip off the raised sockets and insert plate immediately.

H. G. Saunders, Chattanooga, Tenn.

(a) It is generally accepted that any irritant will hasten or prolong the absorption of the alveola.

Be it the use of the gums as organs of mastication in the absence of a denture, or the wearing of non-conducting plates (prominently rubber), which irritate by producing a superheated condition of the tissues adjacent to the plate, thus preventing or prolonging an otherwise physiological action into a pathological condition, and the necessary discomfiture would make it ill advised for us to attempt a forced absorption, which, in my opinion, could be produced through irritation.

(c) I would never trim the alveola unless prominences have been created through injury in extraction. An ordinary alveola forcep is generally sufficient.

Wallace Clyde Davis, D.D.S., Lincoln, Neb.

Question 169. *I have a case of full upper denture, of which I have taken three perfect impressions with plaster. The mouth is of good shape; arch averagely deep; the ridge in center very hard and rather soft on each side. I have cut out on each side of cast so as to raise the plate on the soft parts, and cut an air chamber, so as to take the pressure off the hard center, and still I fail to obtain a particle of suction. Even the impression does not adhere, but when hard, drops right down. Will some one recommend a remedy?*

I do not think your impression extended back far enough. If it did extend back on soft tissues and the impression was perfect, I can offer no suggestion.

H. G. Saunders.

In taking impression use quite soft plaster to avoid undue pressure and not displace the soft tissues. Allow plaster to harden thoroughly before removing, and in place of a so-called air chamber trim all that part of impression coming in contact with hard tissues, and trim more as you approach the center where chamber is generally cut. On model, trim a very little all around the margin above alveola and at the back, except in center where ridge is hard.

Wallace Clyde Davis, D.D.S.

I fail to see, from description, why there should be no suction. After obtaining a good cast by examining the mouth and scraping the cast corresponding to the soft places in the mouth, to allow the plate to rest with equal pressure all over surface. By putting in a large air chamber, the plate will "stick." To improve suction I scrape a slight groove on the cast to allow a raised place along the heel of plate.

W. F. Schwaner.

Dry every portion of the mouth where the impression will touch; barricade the impression cup at the back with soft wax; trim the model where mouth is soft, and do not allow the plate to touch where it is hard. Look well to the articulation.

The plate should be thinner than where atmospheric pressure is easily obtained.

When assured that the plate affords no discomfort to patient, dust pulverized gum tragacanth on the palatal surface of plate while wet, and press firmly to place.

Use this powder till the tissues are educated, so to speak, and the patient also.

We had a similar case this summer. A patient about to sail for Europe could not keep his teeth in his mouth, but on being supplied with the powder, he used it for several weeks and had no further trouble.

Charles B. Baker.

I should take the impression in tolerably stiff wax, and be very careful to get a high, close fit under the lips and cheeks.

Trim cast only by making a very shallow but wide groove at the extreme posterior palatal border, extending from near the ridge of alveolus to—but not over—the hard roof, graduating the depth in the extension of the groove according to the softness of the tissue it is to meet. Of course, deepest where softest. Then scrape the cast slightly all around the rim where it comes in contact with the labial and buccal surfaces of the alveolus.

I use no air chamber, but when I deem it prudent or necessary, I make depressions in the impression over the soft parts of the palate about the size of a No. 10 round bur, placing them between one-quarter and three-eighths of an inch apart each way. If your plaster is good, this will leave little hard mounds all over the cast, and result in corresponding depressions in the rubber plate. If the plaster is poor, you will be obliged to use carriage gimp tacks driven into the cast. I have found this more effective and less objectionable than any other form of air chamber. However, in one case I found it necessary to carve a model; no impression would do.

E. P. Stiles, D.D.S.

Question 170. (a) *What will prevent or relieve the nausea, pallor and extreme nervousness which sometimes prevails after using cocain?*

(b) *What is the best remedy for after-pains in extracting with hypodermic anesthetics?*

(a) I have ceased to use cocain hypodermically, because I do not know how to control its after effects, and I do not think the good accomplished counterbalances the after effects sometimes seen. *H. G. Saunders.*

(a) Strong coffee is a good tonic in such cases. If the case is serious there is a supposed antidote which I have not had occasion to use—nitrate of amyl. I avoid cocain.

(b) Phenol-sodique is all I have ever had occasion to require.

E. P. Stiles, D.D.S.

(a) Aromatic spirits ammonia, thirty to fifty drops in a third of a tumbler of water is the best thing to use. I sometimes give whisky before the patient takes the chair. Strong coffee is very good to drink a short time before using the anesthetic.

(b) I have patients use hot salt water after extracting, and advise its use on their return home.

W. F. Schwaner.

(a) The inhalation of nitrate of amyl—three or four drops—is the best antidote, being one of our most powerful cardiac stimulants. Be careful, as an over-dose is deadly, through over stimulation of the heart's action.

(b) Campho-phenique injected, with an ordinary drop syringe, into the cavity caused by extraction. There is nothing better, and is easily made by warming the crystals of carbolic acid till liquid, and placing in this as much camphor gum as it will dissolve. *Wallace Clyde Davis, D.D.S.*

Question 171. (a) *Is aluminum so effected by the secretions of the mouth as to become brittle or soft after being worn a few years?*

(b) *How long will the average aluminum plate last?*

(b) From three to five years.

Charles B. Baker.

Aluminum is readily dissolved by almost any strong alkaline solution. I think its lasting qualities are altogether dependent on the condition of the saliva. Early in its use, we used to think the cause of pin-holes, etc., was impurity of the material ; but I now think it caused by an alkaline reaction of the saliva.

H. G. Saunders.

I think if aluminum in any way proves unsatisfactory, as now used as a base for dentures, it is through impurities, either originally in the metal, or through contamination in careless swaging, or annealing before cleansing. Let me here suggest the use of a non-mercury dental rubber in making rubber attachments to aluminum.

Wallace Clyde Davis, D.D.S.

Dr. Talbot, says: The antrum cannot be depended on as to size; that is, whether it is as large as one's little finger or as a hen's egg, and extends over to the roof of the mouth, cannot be determined from appearances. We have seen skulls from which it would have been impossible to extract a tooth on one side of the mouth without going into the floor of the nose. We have reached the conclusion that the point between the second bicuspid and first permanent molar was the proper place to enter the antrum in operating. You must not lose sight of the septum which divides the antrum into two chambers. If you go up into only one antrum, the patient's head should be laid first on one side, then on the other, so as to drain both antra thoroughly. Treatment after opening should be simple. Cleanse out with syringe, using warm water or a weak solution of listerin or boracic acid, or something which will not injure the mucous surface. Many specialists use too strong remedies. Very simple treatment only is needed; cleanse thoroughly with warm water, and let nature do the rest.

In disease of the antrum the dentist should take entire charge of the case, which he should be competent to treat. We do not consider a man a real dentist who cannot do so, though we fear there are comparatively few who are qualified; and we should not attempt to open into the antrum without knowing that it was necessary. We might go so far as to extract a tooth, but should then wait two or three months, if there was any doubt, to give time for a cure of the trouble by nature's help. Then, when sure that it was required, we should make the opening. A drainage tube is not always necessary. If properly cleansed, the orifice made will sometimes heal up in twenty-four hours. In mild cases of antral trouble, where transmitted light gives no indication, we should treat the patient constitutionally. Ninety-nine out of one hundred cases are due to inflammation of the mucous membrane, as from the effects of grip or the inhalation of extremely cold air.

Quemos.

PRACTICAL POINTS.

By Mrs. J. M. Walker.

Substitute for Metallic Clasps in Narrow Partial Dentures.—To avoid the friction of metallic clasps, and also the expense of gold, fashion the clasps of white caoutchouc.

Caracatsanis.

Pyorrhea Alveolaris.—"I believe that I have accomplished more by the use of Buchan's carbolic soap and listerin than with anything else I know of for lesions about the necks of the teeth."

S. G. Perry.

Root Filling, with Large Open Foramen.—Incorporate a little finely pulverized iodoform into the cement with which such canals should be filled, because of its beneficial action on the tissues about the end of the root.

Miller.

To Make Close Joint Between Logan Crown and Root End.—Thread on the pin of the Logan crown a small disk of articulating paper, and press firmly to place. Grind off all points of contact as indicated by black marks till the contact surface presents an unbroken black ring.

E. C. Kirk.

Test for Cocain in Local Anesthetic Nostrums.—Add to the preparation a drop of bichromate of potassium solution. If cocain is present, a precipitate will form; on warming, the liquid turns green, and gives off fumes having the odor of benzoic acid.

Review.

Partial Plates, or Repairs in Rubber Work Without Waxing or Packing.—Grind the teeth to the mouth; place in position on model, and secure with plaster. With a hot spatula adapt rubber to the model, smooth to form desired, flask and vulcanize.

Jas. B. Day.

An Inoffensive Antiseptic for Use in the Mouth.—Saccharin is a powerful antiseptic of the mouth in weak solutions. Strong solutions, from its acidity, attack the enamel; but neutralized solutions, even very concentrated, are absolutely inoffensive, and sufficiently antiseptic against the microbes of the mouth.

Am. Jour. Den. Sci.

Erosion.—Phillipp's Milk of Magnesia—a teaspoonful taken into the mouth at bedtime, and rinsed about till it comes in contact with the teeth—will form an antacid coating which will remain for some time. It should be prescribed freely in all cases of acid reaction—erosion and other like pathological conditions.

R. S. Barrett.

ITEMS.

A nickel rolled out thin for bands, etc., is superior to the German silver band material that we buy in depots. It is tougher, has better color, to me more easily soldered, and will yield more than twice as much band material as we find in the Angle coil, which costs fifty cents.

B. D. Brabson, Knoxville, Tenn.

* * *

I noticed some time since a brother complaining about the packing in his vulcanizer giving out so often. I had the same trouble till I got some asbestos rope packing, and packed my Whitney vulcanizer last August a year, and have the same packing in to-day. I coat it occasionally with stove polish.

Dr. B. C. M. Manigal, Logan, O.

* * *

It is not so much what we earn as what we save that makes us rich; and our pleasures do not depend so much on the number and expensiveness of our indulgences as on their healthfulness and our contentment. The poor have more luxuries than the rich, because all enjoyable things uncommon are luxuries, and the rich have few rich things that are not common.

Man's rich with little were his judgment true;

Nature is frugal, and her wants are few;

These few wants, answered, bring sincere delight;

But fools create themselves new appetites.

Young.

* * *

INJURY FROM HYDROBROMIC ACID.—I had a curious case some years ago, which, while not in the same line, suggests itself to me at this time. A lady who had had excellent teeth, came for her annual examination, and I noticed that her teeth were disappearing on the inner side. She had erosion of all her teeth, on the inner side only, as far back as the bicuspid. They looked as if they were dissolving. Questioning her pretty closely, I discovered that she was taking hydrobromic acid for headache. I asked her to bring me a sample of the acid of the diluted strength which she was in the habit of using. Covering a tooth partially with wax, I put it in the same solution, and in twenty-four hours all the exposed enamel was eaten away. The front teeth, upper and lower, where the tongue rested against them, were the only ones affected, except a little of the bicuspid; back of that there was no loss. If you ever hear of a physician prescribing hydrobromic acid without extreme precautions, you should bear this in mind.

Dr. Kimball.

Dr. Milton gives a "Method of Making Caps for Gold Crowns" by using two tin or iron boxes. My procedure dispenses with the tin boxes, and is as follows :

Take the small impression-cup of Melotte's and first fill it with compound. Select a tooth the cusps of which are suitable (Logan crowns make the most perfect forms), press it down into the compound, leaving enough exposed to form the cap. Smooth the compound, have the exposed cusps clean and dry, place the rubber ring on, and while you are heating the fusible metal hold a hot instrument against the cusps. Pour slowly and agitate the cup while pouring, and you will have a die with smooth and polished surface. The same principles of procedure are suitable for cuspids and incisors.

E. D. Biddle, Evansville, Ind.

* * *

It has been aptly said that there is not the remotest corner of the inlet of the minute blood-vessels of the human body that does not feel some wavelet from the convulsions occasioned by good, hearty laughter. The life principle of the central man is shaken to its innermost depths, sending new tides of life and strength to the surface, thus materially tending to insure good health to the persons who indulge therein. The blood moves more rapidly, and conveys a different impression to all the organs of the body, as it visits them on that particular mystic journey when the man is laughing, from what it does at other times. For this reason, every good, hearty laugh in which a person indulges, tends to lengthen his life, conveying as it does, new and distinct stimulus to the vital forces.

Brooklyn Times.

* * *

Sheridan's reply to the lady who told him that his writings were such charmingly easy reading—"Easy reading, madame, is damned hard writing"—has never got into the general mind; and very few of the thousands of Tyndall's listeners, I imagine, ever had an inkling of what these facile discourses cost the lecturer. I used to suffer rather badly from "lecture fever" myself; but I never met with any one to whom an impending discourse was the occasion of so much mental and physical disturbance as it was to Tyndall. He was quite incapable of persuading himself, or of being persuaded by others, that, after all, a relative failure now and then was of no great consequence; indeed, from the point of view of pure art, might be desirable. Whatever he gave it must be the best he had, whether it were a lecture or a dinner. Now, that sort of housekeeping costs.

Spencer.

EDITORIAL.

THE VALUE OF MERITED PRAISE.

Bishop Nelson, of the African Methodist Church, and one of the powers of that excellent organization, said the other day :

“ When I was a poor, naked slave boy, what worked me up with an ambition to be some one worthy of my existence was a word from Prof. Fowler, who incidentally said, as he passed me on my master’s plantation, and put his hand on my head : ‘ Boy, that’s a good head. Be good, study, have faith in yourself, and by-and-by you will be heard from.’ Had he said : ‘ Boy, I see you have a strong brain. Behave yourself, or you will get into trouble. Don’t get mad, or you will kill some one,’ I should have grinned, and, perhaps, gone right off and done what he put in my head to do. We have little idea of the power of a right word, even incidentally spoken. It may follow us all through life, working wonders. A bad or depreciating thought put in a child’s mind may be the depressing influence that banishes ambition. Prof. Fowler praised me, praise stimulated me, stimulation developed me, development has made me what I am under God. Without that casual seed of praise, I should now be dreamily spending my life as thousands of my race are doing, who might be raised to purity, thoughtfulness and power by being honestly praised for the possibilities of progressiveness and usefulness within them. Prof. Fowler is gone, and probably his words spoken to a little darkey boy down in Carolina were gone from his memory as soon as he had spoken them ; but those words have traveled through every nook and corner of my brain ever since, and I have been heard from.”

Therefore we add : Don’t be so afraid of giving praise. It will do much more good than so much blame, criticism and fault-finding. There is good in every one. Search it out, if you have to take a lighted candle to find it, and encourage the possessor to develop it. Be not too credulous ; take it for granted there are good qualities in the weakest and most unpromising, and give them stimulation by good, hearty, timely praise and a little help. The

most benighted and depraved have some good qualities, and in some we kick about with our jeers and taunts there may be more than we dream of. A precious diamond is sometimes found in barren soil. When, therefore, the weakest and most hopeless piece of humanity gives out the least scintillation of good, cultivate it, stimulate it, praise it. It will do him good and you, too.

I know, when I was a boy, I used to wonder if there was anything in me worth bringing out; and if, by extraordinary effort, I did anything smart, I liked to see it appreciated. My mother was the only one that could ever see anything in me worth praising, and I know it did much good to have her tell me of it, and encourage me in my studies and work. It was much better than continual warnings and threatenings, and kicks and cuffs, though I may have deserved them all.

Even in maturer age, we are stimulated more by praise than blame. It does us good to see our best efforts and qualities appreciated. Some may be injured and puffed up by it, but most are strengthened and developed. Besides, it is the only honest thing to do. Withholding deserved praise is withholding what is due.

"You will find that boy a very dull scholar," said the mother of Adam Clark to the teacher she was about to put him under; "but you must not spare the rod; I can do nothing with him. He is a blockhead. He is specially stupid in composition."

That he was to have a teacher wiser than his mother was providential. Caressing the boy, the teacher replied:

"We will hope better things of the lad than that."

"He will not stand flattery, sir," she persisted; "that will spoil him."

"Madam," the judicious teacher replied, "if you put your child in my care, I must be the judge of the best way to bring out his best qualities."

"You will find no best qualities there, sir; he is a dunce."

"Adam," said the teacher, as soon as they were by themselves, "you and I will wonderfully disappoint your mother; I will make you a smart scholar, and send you back to her to astonish her with what you know. You will need no whipping. I will make a good, intelligent boy of you yet. It's in you, and I will bring it out."

He did bring it out; for Adam Clark became one of the best preachers, the most profound scholar, and the greatest Bible commentator of his time. His exhaustive commentary is a standard now.

It is true, his first recitations in Latin were specially faulty. His teacher judged the lessons too advanced for his age, and encouraged him by passing them by for a few months, and even then giving him much easier lessons. His compositions were disjointed and crude, but the teacher saw the subjects were too difficult.

"Here," said he, "you remember your brother Tom's adventure with the donkey? You were telling me of it. Just make the whole school laugh by telling it to them on paper."

He did make them laugh. And with something like such talk and praise and encouragement he brought Adam out and up, and made him a praise to the whole earth.

Little children in our dental office deserve praise for being willing to come to such an awful place. Praise for taking the first step will amazingly help them take the second, and every step should be commended. Praise for everything creditable they do will help them do what is still more creditable.

We shall not go far astray if we give a little praise to older children. It will make them better patients, and add dollars to our pocket.



There was a nice appearing young lady dentist at the last New Jersey Convention. Introducing herself to me, she asked me into a side room to drink with her. I assured her I drank no intoxicants. Then she took from her side pocket some cigars and said to me and her lady companion that just then came up, "Then will you not smoke with us?" I was shocked. "Is this the proper thing to do in your community," said I. They both assured me it was quite fashionable, and therefore, of course, quite proper, both to drink intoxicants in moderation and to smoke tobacco; and that this side room they invited me into was the headquarters of the officers of the society. At the hotel where we met in session there was no bar, so the officers had improvised one, for there

were no saloons in the city. And what these ladies thought was more delightful was that the liquor and cigars were free.

Oh, I have misstated one thing. These were not nice appearing young ladies that invited me into this side room to drink with them; they were nice appearing young men. But why should this make much difference? Why should we have one standard of morals for the young men and another and higher one for the young ladies? Why should we men feel at liberty to do what we would not approve in our wife and mother? How coarse and vulgar it would seem to see a smoking, drinking lady dentist! We would say she was no lady, and she would have few customers of the better class.

I like an advertising dentist, but I want him to advertise so ingeniously that I shall not know how it is done, or, at least, so that it shall not be an offense—still better if he can so completely deceive me that I can see it and yet be ignorant of it. The dentist who does not advertise, dies.

The very appearance of some dentists as they walk the street, or appear at church, or in ordinary, or in special company is as good an advertisement as they can have. Not because of anything gaudy, or immaculate, or superfine, or even professional, but just because they are so trim and clean and approachable: Discrete, self-possessed, and intelligent, and yet not self-conscious, self-inflated, and supercilious.

Nice surroundings in our office are a perpetual advertisement to those who call. Patients, especially ladies, like to see things clean and neat, the atmosphere pure and cheery, and the manners of the dentist easy and gentlemanly.

The way a dentist works may be a good advertisement. Quiet and yet prompt; gentle and yet thorough; precise, and yet not fussy; rapid without being hasty; skilful without being bombastic; self-possessed without being officious.

The good opinion, and now and then a good word, of our patrons, as they mingle in society is free advertising, but price-

less. A dentist with these good qualities is not long in a community without the whispers of commendations from grateful patients. And they tell.

Prices for work good, but not extravagant; substantial, but not tricky; professional, but not fancy, will give dignity to our standing, appreciation to our work, and advertisement for honor and excellence. They are sure to bring the respect, confidence and patronage of "the best families."

I like to see an advertising dentist. It does me good, and does him good—if he advertises in this way. But if he pins his advertisement on the back of a dirty, shabby coat, and attracts attention by ill-manners, loose habits, and the scent of tobacco and beer, or seeks patronage by advertising cheap prices, poor office, and uncouth ways, I don't like him, and the best paying classes of the community will not like him.

To speak and write clearly, we must think closely and methodically. A loose, bungling thinker is sure to be careless and incoherent in expressing his thoughts. Much as we think and talk, we plan and do. The foundation of successful living, therefore, is close, clear, terse thinking. This is not so difficult as it may at first appear. Of course, to get into the habit needs persevering study and labor, but once in the habit, there is nothing easier. Its very simplicity and economy are its highest commends. To think logically is easier and quicker than to think without regard to sequences and consequences. To think closely is only to discard wandering, irrelevant items, and to keep the mind on the single subject in review, building it up from the segregate to aggregate, from the simple to the complex, from the individual to the concrete. And what builder find this as difficult as to bring his materials together without reference to their adaptation, and to put them together hap-hazard?

No, no; let us avoid confusion in thought, word, plan and execution by using method, perspicuity and logical processes.

HINTS.

Teeth extracted without pain while you wait, at D. Z. Hand's,
218 High street.

* * *

The lifeless body of Harry B. Johnson, agent of the Anglo-American Saving and Loan Association, was found on one of the principal streets of Columbia, September 14th. The coroner's jury rendered a verdict of death from excessive cigaret smoking.

* * *

You can be sure of nothing that is not the product of your own genius. Friends may help you, but they cannot make you. Rich uncles may leave you money, but not brains. Flattery, favoritism and "luck" may boost you, but they cannot sustain you.

* * *

Parents must be taught that first permanent molars are intended by nature to last a lifetime; that they do not belong to the temporary set, even though no teeth have been lost antecedently; and that they need close scrutiny to preserve them. With the parents thoroughly educated to the importance of the situation, the dentist becomes responsible.

* * *

As we all live in glass houses it is dangerous to throw stones. An article read before the Tennessee Society, and published in the *Headlight*, was printed in the *ITEMS* without giving the *Headlight* credit. Whereupon, the *Southern Dental Journal* scolds us like a typical mother-in-law, because it also had published it as "original matter," and we had not given it credit. Yet, in the same issue, it is obliged to apologize for having the previous month printed three articles as original matter which were taken from other journals.

* * *

INSECTS ON FLIES.—Dr. T. S. Hitchcock, of Oswego, recently exhibited a common house fly under the microscope, which proved conclusively that flies have deadly enemies aside from the sticky paper and poison liquids that are so fatal to them when laid out temptingly by the housewife. This enemy is a parasite, so minute as to be imperceptible to the naked eye, but under the microscope it is shown to be an insect capable of destroying the fly. The fly exhibited by Dr. Hitchcock had four of these parasites attached.

One of them was filled with blood sucked from the fly. Dr. Hitchcock says that these parasites are only observable on flies late in the season, and the increased number of dead flies in households during September and October is due to their attacks. People having microscopes will find a subject of interest in making an examination of house flies.

* * *

Do not be ashamed of the day of small things. If you cannot command, serve; if you cannot be first even in service, do the drudgery. Be anything, do anything, and be cheerful in your station, and do it well, and promptly, and this will be the preparation for something better. Do not be ashamed of the smallest details, the most insignificant trifles, keep up all the little ends, let nothing escape your attention. Such a discipline will make you as methodical in spheres to which these business habits and this industry and faithfulness are sure to lead you. But, on the contrary, if you do your present duties reluctantly, slothfully, and poorly, you will probably always have them to do. What you are in your present sphere you would likely be in a higher sphere, if you are promoted, and the more important the duties you should neglect, the more your incompetence would be felt. You would be neither fit to serve others nor to serve yourself.

* * *

If you were preparing to speak before an audience of ten thousand persons, would you not do your best? With still greater care you should prepare if you would be heard by the readers of the *ITEMS*. It has a great audience now, all over the civilized world. Remember, there is much to say by many, and its pages are limited. Your hearers have not much time to listen, nor much patience with crudity, and still less with crude experiences. When you think you have a new devise or new thought worthy of a hearing, mature it thoroughly, reduce it to practice yourself with the severest criticism, and then let us have it—no, still let patience, and experience, and time have their perfect work. Then state your case clearly and briefly, if it takes all summer to learn how. The more familiar you are with what you have to say the easier it will be to say it briefly and clearly. There are only a few terse, interesting, clear-cut writers, and they are they who have studied the science thoroughly and spoiled ream after ream of paper in learning how to tell it. Be willing to pay the price of excellence in anything, and you will possess it; and your fellows will delight to honor you.

FOR OUR PATIENTS.

A PRESCRIPTION.

My pallid friend, is your pulse beating low?
Does the red wine of life too sluggishly flow?
Set it spinning through every tingling vein
By out-door work, till you feel once again
Like giving a cheery school-boy shout;
Get out!

Are you morbid, and like the owl in the tree,
Do you gloomily hoot at what you can't see?
Perhaps, now, instead of being so wise,
You are only looking through jaundiced eyes;
Perhaps you are bilious, or getting too stout;
Get out!

Out in the air, where fresh breezes blow
Away all the cobwebs that sometimes grow
In the brains of those who turn from the light,
To all gloomy thoughts instead of the bright,
Contend with such foes and put them to rout;
Get out!

THIS OR THAT?

'Tis not my talent to conceal my thoughts,
Or carry smiles and sunshine in my face
When discontent sits heavy at my heart.

Addison.

Yet, shall I wear the pall of mourning deep,
And show the tears that should be hid from view?
Nay; burdened hearts should keep their own sad sighs.
The world is pleased with heroes that can feel
A stroke and smile, and smile again when struck,
And smile because they have the strength to stand.

Welch.

Lowell says:

"No man is born into the world whose work
Is not born with him; there is always work,
And tools to work withal, for those who will;
And blessed are the horny hands of toil.
The busy world shoves angrily aside
The man who stands with arms akimbo set
Until occasion tells him what to do;
And he who waits to have his task marked out
Shall die and leave his errand unfulfilled."

WHAT OUR GRANDMOTHER'S DIDN'T KNOW.

"Don't read it to me; I don't want to ever hear of another kind of germ," said an elderly woman of positive opinions. "I don't believe in them. Our grandmothers didn't know anything about them, and they were a great deal happier and lived just as long as the people who boil their drinking water, Pasteurize their milk, and who won't eat pork. Why, they tell me that there are whole churches full of people who won't go to the communion table now for fear of contagion from the cup of blessing. Just as if the Lord would poison the cup He offered to His children at His own table. My minister says if we give up the old way we may as well give up our religion. He says it is only the 'so-called scientists' that got up the scare, and that they haven't proved as much as they expected to. Why, I went to the meeting of the Sanitary League with Cousin James' wife when I was in Washington last winter, and one of those scientists who has something to do with the Bureau of Animal Industry—I suppose that's the bureau where they invent new germs—said there might be a parasite in every food we had for dinner, from the soup to the salad. I just wrote down the names of some of them, they were so queer. The one that sometimes gets into the soup is a small beetle that he called the 'blaps mucro nata,' that will not injure you, but inside the little creature there is a thing called an 'organism' that grows into a worm from two to four inches long. Then on the bread, if the cook has not perfectly clean hands, there might, he said, be deposited the eggs of pin-worms, common parasites in human beings, or the bread-box might be left open and the bread be contaminated with a parasite left by mice, known as the 'megastoma intestinale.' A parasite that might be found in fresh water fish, and make mischief if the fish is served before cooked sufficiently, is the germ of the tape-worm, the largest parasite found in man, but this one the scientists said is rare in America. Then he pictured the terrors that might abide in a drink of water, and those found in underdone meats, even in beef, but more deadly in the try chine of pork. The salads are all right at ani-rate, I thought; but no, he had provided a tiny animal that he called 'the common liver fluke' for them, a parasite that is sometimes found on the leaves of plants that are not thoroughly washed before sending them to the table. This parasite is more common to sheep and cattle than to men, and has killed large numbers of them. Eating became a very interesting and serious business at Cousin James' house for a while after hearing that lecture, and though I don't believe in

germs, I was glad that Elizabeth, his wife, should be reminded that you run risks when you think it beneath you to go into your kitchen and leave everything about the preparation of your food entirely to ignorant servants."

Evening Post.

COMPARISON OF PROFESSIONAL FEES.

The *Pacific Medical Journal* in the course of an able editorial, says the following :

Why a lawyer should be paid 500 per cent more than a doctor for doing five hundred times as little work, we suppose is entirely owing to the fact that the lawyer is that much more capable of taking care of his own interests. Exactly why the secular press of this country should take the same view of the case is a mystery. A case in point. The daily papers are congratulating ex-President Harrison on receiving a fee of \$25,000 for four hours' work in court ; had a medical man of equal ability as Mr. Harrison charged a many times millionaire \$5,000 for a month's constant attention, the whole press would be charging him with robbery—a man to be avoided when you are sick, etc. Another case in point. Judge Levy, of this city, has just allowed a firm of attorneys a fee of \$80,000 for looking after the routine business of an estate for a few months, and yet this very same judge refused to allow a fee of \$30,000 which a medical man had presented for many months' attendance on a millionaire and his family. The actual work was probably one hundred times more than that performed by the attorney who received \$80,000 ; while the responsibility was probably five hundred times more, yet his Honor, Judge Levy, saw fit to cut the doctor's fee down to \$10,000. And why?

Med. World.

Dr. W. G. A. Bonwill, of Philadelphia, has had but three cases of antral disease which had come from the teeth. It is a question how far we, as dentists, may treat antral cases, because they have given so much trouble to the best general surgeons. Much as he loves a tooth, and much as he tries to save them under almost all circumstances, he thinks he should prefer, in case of antral trouble, to extract a tooth so as to have plenty of light. It is well, of course, not to make unnecessary extra openings in surgical operations ; if there is already one, we should try not to make more. After opening the cavity, we ought to be able to drain it thoroughly. If this cannot be accomplished with cotton, then wool may be used, which does very well in many cases. Then, unless there is diseased bone to be removed, we ought to be able to medicate readily.

Cosmos.